Roadstar ®

LCD-2043

CONTENTS

SAFETY NOTICE

WARNING: Only competent service personnel may carry out work involving the testing or repair of this equipment.

This receiver must operate under AC 100-240 volts, 50/60Hz.
Never connect to a DC supply of any other voltage or frequency.

Potential high voltages are present when this receiver is operating.
Operation of the receiver outside the cabinet or with the back cover removed involves a shock hazard from the receiver.
Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment.

Keep wires away from high voltage or high temperature component.

When replacing a high wattage resistor (oxide metal film resistor) in circuit board, keep the resistor body 10mm away from the circuit board.

Many electrical and mechanical parts in this equipment have special safety-related characteristics.
Replacement parts which have such features are identified by designated symbol on the parts list.
Before replacing any of these components, read the parts list carefully.
If the fuse is blown, replace it with the fuse specified in the Parts List.

SPECIFICATIONS

- Key parts

	Device	Use	Remark
1	LC201V1-A3 [LG Philips LCD]	20.1″ TFT LCD panel	
2	TCPQ9091PD27E [SEM]	Tuner with IF	
3	PW164B [Pixelworks]	Image processor + u-Controller	
4	DS1817-10 [Dallas]	Reset (PW164B, SAA5264)	
5	8Mbits	Flash ROM	
6	24C16 (16Kbits)	EEPROM	
7	FSTD3306	Level shifter (I2C bus line)	
8	74LVC541	Buffer/Driver (Local key control)	
9	VPC3230D [Micronas]	Video processing	
10	SDA9400 [Micronas]	SRC	Option
11	MSP3410G [Micronas]	Sound processing	
12	TDA8944J [Philips]	Audio Amp.	
13	SAA5264 [Philips]	Teletext	Option
14	IRF7314 [IR]	MOSFET (LCD panel Vcc on/off)	
15	LA7217 [Sanyo]	Sync. detect	

-Channel table

CH	CCIR	GB	OIRT	Ireland	France	Australia	China
C00						46.25	
C01			49.75	45.75	47.75	57.25	49.75
C02	48.25		59.25	53.75	55.75	64.25	57.75
C03	55.25		77.25	61.75	60.5	86.25	65.75
C04	62.25		85.25	175.25	63.75	95.25	77.25
C05	175.25		93.25	183.25	176	102.25	85.25
C06	182.25		175.25	191.25	184	138.25	168.25
C07	189.25		183.25	199.25	192	175.25	176.25
C08	196.25		191.25	207.25	200	182.25	184.25
C09	203.25		199.25	215.25	208	189.25	192.25
C10	210.25		207.25	223.25	216	196.25	200.25
C11	217.25		215.25	231.25	189.25	209.25	208.25
C12	224.25		223.25	239.25	69.25	216.25	216.25
C13	82.25			247.25	76.25		471.25
C14				49.75	83.25		479.25
C15				57.75	90.25		487.25
C16				65.75	97.25		495.25
C17				77.75			503.25
C18				85.75			511.25
C19							519.25
C20							527.25
C21	471.25						535.25
C22	479.25						543.25
C23	487.25						551.25
C24	495.25						559.25
C25	503.25						607.25
C26	511.25						615.25
C27	519.25						623.25
C28	527.25						631.25
C29	535.25					534.25	639.25
C30	543.25					541.25	647.25
C31	551.25					548.25	655.25
C32	559.25					555.25	663.25
C33	567.25					562.25	671.25
C34	575.25					569.25	679.25
C35	583.25					576.25	687.25
C36	591.25					583.25	695.25
C37	599.25					590.25	703.25
C38	607.25					597.25	711.25
C39	615.25					604.25	719.25
C40	623.25					611.25	727.25
C41	631.25					618.25	735.25
C42	639.25					625.25	743.25
C43	647.25					632.25	751.25
C44	655.25					639.25	759.25
C45	663.25					646.25	767.25
C46	671.25					653.25	775.25
C47	679.25					660.25	783.25
C48	687.25					667.25	791.25
C49	695.25					674.25	799.25
C50	703.25					681.25	807.25
C51	711.25					688.25	815.25
C52	719.25					695.25	823.25
C53	727.25					702.25	831.25
C54	735.25					709.25	839.25
C55	743.25					716.25	847.25
C56	751.25					723.25	855.25
C57	759.25					730.25	863.25
C58	767.25					737.25	871.25
C59	775.25					744.25	879.25

CH	CCIR	GB	OIRT	Ireland	France	Australia	China
C60	783.25					751.25	887.25
C61	791.25					758.25	895.25
C62	799.25					765.25	903.25
C63	807.25					772.25	911.25
C64	815.25					779.25	919.25
C65	823.25					786.25	927.25
C66	831.25					793.25	935.25
C67	839.25					800.25	943.25
C68	847.25					807.25	951.25
C69	855.25					814.25	
C70	863.25						
C71	69.25						
C72	76.25						
C73	83.25						
C74	90.25						
C75	97.25						
C76	59.25						
C77	93.25						
S01	105.25		105.25	103.25	104.75		112.25
S02	112.25		112.25	111.25	116.75		120.25
S03	119.25		119.25	119.25	128.75		128.25
S04	126.25		126.25	127.25	140.75		136.25
S05	133.25		133.25	135.25	152.75		144.25
S06	140.25		140.25	143.25	164.75		152.25
S07	147.25		147.25	151.25	176.75		160.25
S08	154.25		154.25	159.25	188.75		224.25
S09	161.25		161.25	167.25	200.75		232.25
S10	168.25		168.25		212.75		240.25
S11	231.25		231.25		224.75		248.25
S12	238.25		238.25		236.75		256.25
S13	245.25		245.25	255.25	248.75		264.25
S14	252.25		252.25	263.25	260.75		272.25
S15	259.25		259.25	271.25	272.75		280.25
S16	266.25		266.25	279.25	284.75		288.25
S17	273.25		273.25	287.25	296.75		296.25
S18	280.25		280.25	295.25	136		304.25
S19	287.25		287.25	303.25	160		312.25
S20	294.25		294.25				320.25
S21	303.25		303.25				328.25
S22	311.25		311.25				336.25
S23	319.25		319.25				344.25
S24	327.25		327.25				352.25
S25	335.25		335.25				360.25
S26	343.25		343.25				368.25
S27	351.25		351.25				376.25
S28	359.25		359.25				384.25
S29	367.25		367.25				392.25
S30	375.25		375.25				400.25
S31	383.25		383.25				408.25
S32	391.25		391.25				416.25
S33	399.25		399.25				424.25
S34	407.25		407.25				432.25
S35	415.25		415.25				440.25
S36	423.25		423.25				448.25
S37	431.25		431.25				456.25
S38	439.25		439.25				
S39	447.25		447.25				
S40	455.25		455.25				
S41	463.25		463.25				

-CNI code
VPS data

Country	C	NI	Name					Network
	0x0D	0xC1		'A'	'R'	'D'		ARD bundesweit, Erstes Deutsches Fernsehen
	0x0D	0xC4						ARD-TV-Sternpunkt
	0x0D	0xC5						ARD-TV-Sternpunkt-Fehlersieb, interne Störfallkennung
	0x0D	0xC3	'A'	'R'	'-'	'Z'	'D'	ARD-ZDF Common program
	0x0D	0xC2		'Z'	'D'	'F'		ZDF bundesweit, Zweites Deutsches Fernsehen
	0x0D	0xE5	'W'	'D'	'R'	'-'	'1'	WDR-1 / Regionalprogramm
	0x0D	0xE6	'W'	'D'	'R'	'-'	'3'	WDR-3 / landesweit (split at times)
	0x0D	0xE7						WDR-3 / Bielefeld
	0x0D	0xE8						WDR-3 / Dortmund
	0x0D	0xE9						WDR-3 / Düsseldorf
	0x0D	0xEA						WDR-3 / Köln
	0x0D	0xEB						WDR-3 / Münster
	0x0D	0x9A		'R'	'T'	'L'		RTL / Regional
	0x0D	0x9B						RTL / Schleswig-Holstein
	0x0D	0x9C						RTL / Hamburg
	0x0D	0x9D						RTL / Berlin
	0x0D	0x9E						RTL / Niedersachsen
	0x0D	0x9F						RTL / Bremen
	0x0D	0xA0						RTL / Nordrhein-Westfalen
	0x0D	0xA1						RTL / Hessen
	0x0D	0xA2						RTL / Rheinland-Pfalz
	0x0D	0xA3						RTL / Baden-Württemberg
	0x0D	0xA4						RTL / Bayern
	0x0D	0xA5						RTL / Saarland
	0x0D	0xA6						RTL / Sachsen-Anhalt
	0x0D	0xA7						RTL / Mecklenburg-Vorpommern
	0x0D	0xA8						RTL / Sachsen
	0x0D	0xA9						RTL / Thüringen
	0x0D	0xAA						RTL / Brandenburg
	0x0D	0xAB						RTL Plus
	0x0D	0x8F	'R'	'T'	'L'		'2'	RTL 2
	0x0D	0x90						RTL 2 / regional
	0x0D	0x95	'S'	'A'	'T'	'1'		SAT 1 / Brandenburg
	0x0D	0x96						SAT 1 / Thüringen D96
	0x0D	0x97						SAT 1 / Sachsen
	0x0D	0x98						SAT 1 / Mecklenburg-Vorpommern
	0x0D	0x99						SAT 1 / Sachsen-Anhalt
	0x0D	0xAD						SAT 1 / Regional
	0x0D	0xAE						SAT 1 / Schleswig-Holstein
	0x0D	0xAF						SAT 1 / Hamburg
	0x0D	0xB0						SAT 1 / Berlin
	0x0D	0xB1						SAT 1 Niedersachsen
	0x0D	0xB2						SAT 1 / Bremen
	0x0D	0xB3						SAT 1 Nordrhein-Westfalen
	0x0D	0xB4						SAT 1 / Hessen
	0x0D	0xB5						SAT 1 / Rheinland-Pfalz
	0x0D	0xB6						SAT 1 / Baden-Württemberg

Country	C	NI	Name					Network
	0x0D	0xB7						SAT 1 / Bayern
	0x0D	0xB8						SAT 1 / Saarland
	0x0D	0xB9						SAT 1
	0x0D	0x94	'P'	'R'	'O'		'7'	PRO 7
	0x0D	0xAC	'P'	'R'	'E'	'M'	'.'	Premiere
	0x0D	0x92	'K'	'A'	'B'	'.'	'1'	Kabel 1
	0x0D	0xC7	'3'	'S'	'A'	'T'		Satelliten-Programm "3sat" (ARD/ZDF/ORF/SRG common programme)
	0x0D	0xCA	'B'	'R'	'-'	'1'		BR-1 / Regionalprogramm
	0x0D	0xCB	'B'	'R'	'-'	'3'		BR-3 / landesweit (split at times)
	0x0D	0xCC						BR-3 / Süd
	0x0D	0xCD						BR-3 / Nord
	0x0D	0xCE	'H'	'R'	'-'	'1'		HR-1 / Regionalprogramm
	0x0D	0xE0	'S'	'W'	'-'	'3'		SW 3 (Südwest 3), Verbund 3 Programme SDR, SR, SWF
	0x0D	0xE1						SW 3 / Regionalprogramm Baden-Württemberg
	0x0D	0xE2						SW 3 / Regionalprogramm Saarland
	0x0D	0xE3						SW 3 / Regionalprogramm Baden-Württemberg Süd
	0x0D	0xE4						SW 3 / Regionalprogramm Rheinland-Pfalz
	0x0D	0xDB	'S'	'F'	'B'	'-'	'1'	SFB-1 / Regionalprogramm
	0x0D	0xDC	'S'	'F'	'B'	'-'	'3'	SFB-3 (separation from Nord 3)
	0x0D	0xF7		'W'	'D'	'R'		Lokal-Programm WDR-Dortmund
	0x0D	0xF5		'M'	'D'	'R'		MDR / Dresden
	0x0D	0xF9						MDR / Magdeburg
	0x0D	0xFC						MDR / Erfurt
	0x0D	0xF3	'M'	'D'	'R'	'-'	'1'	MDR-1 / Landesprogramm Sachsen
	0x0D	0xF6						MDR-1 / Landesprogramm Sachsen-Anhalt
	0x0D	0xFA						MDR-1 / Landesprogramm Thüringen
	0x0D	0xFD						MDR-1 / Regionalprogramm
	0x0D	0xF4	'M'	'D'	'R'	'-'	'3'	MDR-3 / Sachsen
	0x0D	0xF8						MDR-3 / Sachsen-Anhalt
	0x0D	0xFB						MDR-3 / Thüringen
	0x0D	0xFE						MDR-3 / landesweit
	0x0D	0xD9	'R'	'B'	'-'	'1'		RB-1 / Regionalprogramm
	0x0D	0xDA	'R'	'B'	'-'	'3'		RB-3 (separation from Nord 3)
	0x0D	0x8E		'V'	'O'	'X'		VOX Fernsehen
	0x0D	0x8C	'N'	'-'	'T'	'V'		n-tv
	0x0D	0x91	'E'	'U'	'R'		'S'	Eurosport
	0x0D	0x88	'V'	'I'	'V'	'A'		VIVA
	0x0D	0x89	'V'	'I'	'V'	'A'	'2'	VIVA 2
	0x0D	0x85	'A'	'R'	'T'	'E'		Arte
	0x0D	0x8A	'S'	' '	'R'	'T'	'L'	Super RTL
	0x0D	0x8B	'R'	'T'	'L'		'C'	RTL Club
	0x0D	0xBA		'T'	'M'	'3'		TM3 Fernsehen
	0x0D	0xC9	'K'	'I'	'N'	'D'		Kinderkanal ARD/ZDF
	0x0D	0xC8	'P'	'H'	'O'	'E'	'N'	Phoenix ARD/ZDF
	0x0D	0xCF	'H'	'E'	'S'	'S'	'3'	Hessen 3 / landesweit
	0x0D	0xD0	'N'	'D'	'R'	'-'	'1'	NDR-1 / Landesprogramm dreiländerweit (split at times)
	0x0D	0xD1						NDR-1 / Landesprogramm Hamburg

Country	C	NI	Name					Network
	0x0D	0xD2						NDR-1 / Landesprogramm Niedersachsen
	0x0D	0xD3						NDR-1 / Landesprogramm Schleswig-Holstein
	0x0D	0xD4	'N'	'O'	'R'	'D'	'3'	Nord-3 (common 3 Programme NDR, SFB, RB, split at times)
	0x0D	0xD5	'N'	'D'	'R'	'-'	'3'	NDR-3 / dreiländerweit
	0x0D	0xD6						NDR-3 / Hamburg
	0x0D	0xD7						NDR-3 / Niedersachsen
	0x0D	0xD8						NDR-3 / Schleswig-Holstein
	0x0D	0xDD	'S'	'D'	'R'	'W'	'F'	SDR-1 + SWF-1 / Regionalprogramm Baden-Württemberg
	0x0D	0xDE	'S'	'W'	'F'	'-'	'1'	SWF-1 / Regionalprogramm Rheinland-Pfalz
	0x0D	0xDF	'S'	'R'	'-'	'1'		SR-1 / Regionalprogramm
	0x0D	0xEC	'S'	'D'	'R'	'-'	'1'	SDR -1 / Regionalprogramm
	0x0D	0xED	'S'	'W'	'-'	'3'		SW 3 / Regionalprogramm Baden-Württemberg Nord
	0x0D	0xEE						SW 3 / Regionalprogramm Mannheim
	0x0D	0xEF	'S'	'D'	'R'	'W'	'F'	SDR-1 + SWF-1 / Regionalprogramm Baden Württemb und Rhld-Pfalz
	0x0D	0xF0	'S'	'W'	'F'	'-'	'1'	SWF-1 / Regionalprogramm
	0x0D	0xF1	'N'	'D'	'R'	'-'	'1'	NDR-1 / Landesprogramm Mecklenburg-Vorpommern
	0x0D	0xF2	'N'	'D'	'R'	'-'	'3'	NDR-3 / Mecklenburg-Vorpommern
	0x0D	0x81	'O'	'R'	'B'	'-'	'1'	ORB-1 / Regionalprogramm
	0x0D	0x82	'O'	'R'	'B'	'-'	'3'	ORB-3 / landesweit
	0x0D	0x87		'1'	'A'			1A-Fernsehen
	0x0D	0x8D		'D'	'S'	'F'		Deutsches Sportfernsehen
	0x0D	0xBB	'D'	'W'	'T'	'V'		Deutsche Welle Fernsehen Berlin
	0x0D	0xBD	'O'	'.'	'K'	'A'	'N'	Berlin-Offener Kanal
	0x0D	0xBE	'B'	'M'	'I'	'X'	'2'	Berlin-Mix-Channel II
	0x0D	0xBF	'B'	'M'	'I'	'X'	'1'	Berlin-Mix-Channel 1
	0x0D	0x41	'F'	'E'	'S'	'T'	'.'	FESTIVAL
	0x0D	0x42	'M'	'U'	'X'	'X'		MUXX
	0x0D	0x43	'E'	'X'	'T'	'R'	'A'	EXTRA
	0x0D	0x7C	'O'	'N'	'Y'	'X'		ONYX-TV
	0x0D	0x7D		'Q'	'V'	'C'		QVC-Teleshopping
	0x0D	0x7E	'O'	'D'	'E'	'O'	'N'	Nickelodeon
	0x0D	0x7F		'H'	'O'	'T'		Home Shopping Europe
Switzerland	0x04	0xC1	'S'	'F'		'1'		SRG, Schweizer Fernsehen DRS, SF 1
	0x04	0xC2	'T'	'S'	'R'	'1'		SSR, Télévision Suisse Romande, TSR 1
	0x04	0xC3	'T'	'S'	'I'	'1'		SSR, Televisione svizzera di lingua italiana, TSI 1
	0x04	0xC7	'S'	'F'		'2'		SRG, Schweizer Fernsehen DRS, SF 2
	0x04	0xC8	'T'	'S'	'R'	'2'		SSR, Télévision Suisse Romande, TSR 2
	0x04	0xC9	'T'	'S'	'I'	'2'		SSR, Televisione svizzera di lingua italiana, TSI 2
	0x04	0xCA	'S'	'R'	'G'	'S'	'A'	SRG SSR Sat Access
	0x04	0x81	'T'	'E'	'L'	'2'	'4'	TeleZüri
	0x04	0x82		'T'	'C'			Teleclub Abonnements-Fernsehen
	0x04	0x84	'T'	'E'	'L'	'B'	'E'	TeleBern
	0x04	0x85	'T'	'E'	'L'	'M'	'1'	Tele M1
	0x04	0x86	'S'	'T'	'A'	'R'		Star TV
	0x04	0x87	'P'	'R'	'O'	'7'		Pro 7
	0x04	0x88	'T'	'O'	'P'	'T'	'V'	TopTV

Country	C	NI	Name				Network
Austria	0x0A	0xC1	'O'	'R'	'F'	'1'	ORF - FS 1
	0x0A	0xC2	'O'	'R'	'F'	'2'	ORF - FS 2
	0x0A	0xCB					ORF- FS 2 / Lokalprogramm Burgenland
	0x0A	0xCC					ORF- FS 2 / Lokalprogramm Kärnten
	0x0A	0xCD					ORF- FS 2 / Lokalprogramm Niederösterreich
	0x0A	0xCE					ORF- FS 2 / Lokalprogramm Oberösterreich
	0x0A	0xD0					ORF- FS 2 / Lokalprogramm Steiermark
	0x0A	0xD1					ORF- FS 2 / Lokalprogramm Tirol
	0x0A	0xD2					ORF- FS 2 / Lokalprogramm Vorarlberg
	0x0A	0xD3					ORF- FS 2 / Lokalprogramm Wien
	0x0A	0xC3	'O'	'R'	'F'	'3'	ORF - FS 3
	0x0A	0xCF					ORF- FS 2 / Lokalprogramm Salzburg

PKT8/30 data

Country	8/30 format 1		8/30 format 2		Name					Network
France	0x33	0xF1	**0x2F**	**0x01**		'T'	'F'	'1'		TF1
	0x33	0xF2	**0x2F**	**0x02**		'F'	'R'	'2'		France 2
	0x33	0xF3	**0x2F**	**0x03**		'F'	'R'	'3'		France 3
	0x33	0xF4	**0x2F**	**0x04**		'C'	'+'			Canal +
	0x33	0x0A	**0x2F**	**0x0A**	**'F'**	**R'**		**'5'**		Arte / La Cinquième **-> France 5**
	0x33	0xF6	**0x2F**	**0x06**		'M'	'6'			M6
	0xFE	0x01	**0x2F**	**0xE1**	'E'	'U'	'R'	'-'	'N'	Euronews
	0x33	0xC4	**0x2F**	**0xC4**	'L'	'C'	'I'			LCI
	0xF1	0x01	**0x2F**	**0xE2**	'E'	'U'	'R'	'-'	'S'	Eurosport
	0xF5	0x00	**0x2F**	**0xE5**		'T'	'V'	'5'		TV5
	0x33	0xC7	**0x2F**	**0xC7**		'T'	'M'	'C'		TMC Monte-Carlo
	0x33	0xC6	**0x2F**	**0xC6**		'M'	'C'	'M'		MCM
	0x33	0xC8	**0x2F**	**0xC8**	'P'	'R'	'E'	'M'	'.'	Paris Première
	0x33	0xC9	**0x2F**	**0xC9**	'P'	'L'	'A'	'N'	'.'	Planète
	0x33	0xC2	**0x2F**	**0xC2**		'C'		'J'		Canal J
	0x33	0xC3	**0x2F**	**0xC3**	'C'		'J'	'I'	'M'	Canal Jimmy
	0x33	0xC5	**0x2F**	**0xC5**	'M'	'E'	'T'	'E'	'O'	La Chaîne Météo
	0x33	0xC1	**0x2F**	**0xC1**		'A'	'B'	'1'		AB1
	0x33	0x11	**0x2F**	**0x11**	'R'	'F'	'O'	'1'		RFO1
	0x33	0x12	**0x2F**	**0x12**	'R'	'F'	'O'	'2'		RFO2
	0x33	0xCA	**0x2F**	**0xCA**	'C'	'L'	'U'	'B'		Série Club
	0x33	0xCB	**0x2F**	**0xCB**	'T'	'T'	'O'	'O'	'N'	Télétoon
	0x33	0xCC	**0x2F**	**0xCC**	'T'	'E'	'V'	'A'		Téva
	0x33	0x21	**0x2F**	**0x21**		'T'	'L'	'M'		TLM
	0x33	0x22	**0x2F**	**0x22**		'T'	'L'	'T'		TLT
	0x33	0x20	**0x2F**	**0x20**	'A'	'Q'	'U'	'I'		Aqui TV
GB	0x44	0x7F	**0x2C**	**0x7F**	'B'	'B'	'C'	'1'		BBC1
	0x44	0x41	**0x2C**	**0x41**						BBC1 NI
	0x44	0x7B	**0x2C**	**0x7B**						BBC1 Scotland
	0x44	0x7D	**0x2C**	**0x7D**						BBC1 Wales

Country	8/30 format 1		8/30 format 2		Name					Network
	0xFA	0x6F	**0x2C**	**0x2F**						/* BBC1 Wales - old code */
	0x44	0x40	**0x2C**	**0x40**	'B'	'B'	'C'	'2'		BBC2
	0x44	0x7E	**0x2C**	**0x7E**						BBC2 NI
	0x44	0x44	**0x2C**	**0x44**						BBC1 Scotland
	0x44	0x42	**0x2C**	**0x42**						BBC1 Wales
	0xA2	0xFE	**0x2C**	**0x3E**						/* BBC2 - old code */
	0xC8	0xDE	**0x2C**	**0x1E**		'I'	'T'	'V'		ITV NETWORK
	0xFB	0x9C	**0x2C**	**0x1C**						ANGLIA TV
	0xB7	0xF7	**0x2C**	**0x27**						BORDER TV
	0xFC	0xE4	**0x2C**	**0x24**						CHANNEL TV
	0x25	0xD0	**0x2C**	**0x30**						WEST COUNTRY TV
	0xAD	0xD8	**0x2C**	**0x18**						GRANADA TV
	0xF3	0x3A	**0x2C**	**0x3A**						GRAMPIAN TV
	0xF9	0xD2	**0x2C**	**0x12**						SCOTTISH TV
	0x88	0x4B	**0x2C**	**0x0B**						LWT
	0x82	0xDD	**0x2C**	**0x1D**						CARLTON TV
	0x10	0xE4	**0x2C**	**0x34**						MERIDIAN TV
	0x5A	0xAF	**0x2C**	**0x3F**						HTV
	0x2F	0x27	**0x2C**	**0x37**						CENTRAL TV
	0xA8	0x2C	**0x2C**	**0x2C**						TYNE TEES TV
	0x83	0x3B	**0x2C**	**0x3D**						ULSTER TV
	0xFA	0x2C	**0x2C**	**0x2D**						YORKSHIRE TV
	0xAD	0xDC	**0x5B**	**0xD2**						GMTV
	0xFC	0xD1	**0x2C**	**0x11**		'C'	'H'	'4'		CHANNEL 4
	0xB4	0xC7	**0x2C**	**0x07**						S4C
	0x96	0x02	**0x2C**	**0x02**		'C'	'H'	'5'		CHANNEL 5 (1)
	0x16	0x09	**0x2C**	**0x09**						CHANNEL 5 (2)
	0x28	0xEB	**0x2C**	**0x2B**						CHANNEL 5 (3)
	0xC4	0x7B	**0x2C**	**0x3B**						CHANNEL 5 (4)
	0xFC	0xFD	**0x2C**	**0x0D**	'N'	'E'	'W'	'S'		SKY NEWS
	0x01	0xF2	**0x5B**	**0xF1**	'C'	'N'	'N'	'I'		CNNI
	0x37	0xE5	**0x2C**	**0x25**	'S'	'S'	'V'	'C'		SSVC
	0x44	0x01	**0x5B**	**0xFA**	'G'	'O'	'L'	'D'		UK GOLD
	0x44	0x02	**0x2C**	**0x01**	'L'	'I'	'V'	'N'	'G'	UK LIVING
	0x4D	0x58	**0x2C**	**0x20**	'V'	'H'	'-'	'1'		VH-1
	0x4D	0x59	**0x2C**	**0x21**	'V'	'H'	'-'	'1'		VH-1 (German Language)
	0x44	0x03	**0x2C**	**0x3C**	'W'	'I'	'R'	'E'		WIRE TV
	0x44	0x04	**0x5B**	**0xF0**		'T'	'C'	'C'		CHILDREN'S CH
	0x44	0x05	**0x5B**	**0xEF**	'B'	'R'	'A'	'V'	'O'	BRAVO
	0x44	0x06	**0x5B**	**0xF7**	'L'	'E'	'A'	'R'	'N'	LEARNING CH
	0x44	0x07	**0x5B**	**0xF2**	'D'	'I'	'S'	'C'	'V'	DISCOVERY
	0x44	0x08	**0x5B**	**0xF3**		'T'	'F'	'C'		FAMILY CH
	0x44	0x09	**0x5B**	**0xF8**	'L'	'I'	'V'	'E'		Live TV
	0xC4	0xF4	**0x42**	**0xF4**	'F'	'I'	'L'	'M'	'4'	FilmFour
	0x44	0x57	**0x2C**	**0x57**	'W'	'O'	'R'	'L'	'D'	BBC WORLD
	0x44	0x68	**0x2C**	**0x68**	'P'	'R'	'I'	'M'	'E'	BBC Prime

Country	8/30 format 1		8/30 format 2		Name					Network
	0x44	0x69	**0x2C**	**0x69**	'N'	'E'	'W'	'2'	'4'	BBC News 24
	0x44	0xC1				'T'	'N'	'T'		TNT/Cartoon Network
	0x44	0xD1	**0x5B**	**0xCC**	'D'	'I'	'S'	'N'	'Y'	DISNEY CHANNEL UK
	0x4D	0x54	**0x2C**	**0x14**		'M'	'T'	'V'		MTV
	0x4D	0x5A	**0x5B**	**0xF4**	'P'	'L'	'U'	'S'		GRANADA PLUS
	0x4D	0x5B	**0x5B**	**0xF5**	'T'	'I'	'M'	'E'		GRANADA Timeshare
	0x5C	0x44				'Q'	'V'	'C'		QVC UK
	0x82	0xE1	**0x2C**	**0x05**	'S'	'E'	'L'	'.'		CARLTON SELECT
	0x8E	0x71	**0x2C**	**0x31**		'N'	'B'	'C'		NBC Europe
	0xA4	0x60			'N'	'I'	'C'	'K'	'.'	NICKELODEON UK
	0xA4	0x65			'P'	'A'	'R'	'A'	'M'	
	0xFC	0xF3	**0x2C**	**0x13**	'R'	'A'	'C'	'E'		RACING CH
	0xFC	0xF4	**0x5B**	**0xF6**	'H'	'I'	'S'	'T'	'.'	HISTORY CH
	0xFC	0xF5	**0x2C**	**0x15**	'S'	'C'	'I'	'F'	'I'	SCI FI CHANNEL
	0xFC	0xF6	**0x5B**	**0xF9**	'T'	'R'	'A'	'V'	'.'	SKY TRAVEL
	0xFC	0xF7	**0x2C**	**0x17**	'S'	'O'	'A'	'P'	'S'	SKY SOAPS
	0xFC	0xF8	**0x2C**	**0x08**	'S'	'P'	'R'	'T'	'2'	SKY SPORT2
	0xFC	0xF9	**0x2C**	**0x19**	'G'	'O'	'L'	'D'		SKY GOLD
	0xFC	0xFA	**0x2C**	**0x1A**	'S'	'P'	'O'	'R'	'T'	SKY SPORTS
	0xFC	0xFB	**0x2C**	**0x1B**	'M'	'O'	'V'	'I'	'E'	MOVIE CHANNEL
	0xFC	0xFC	**0x2C**	**0x0C**	'P'	'L'	'U'	'S'		SKY MOVIES PLUS
	0xFC	0xFE	**0x2C**	**0x0E**	'S'	'K'	'Y'	'1'		SKY ONE
	0xFC	0xFF	**0x2C**	**0x0F**	'S'	'K'	'Y'	'2'		SKY TWO
Italy	0x39	0x01			'R'	'A'	'I'	'1'		RAI 1
	0x39	0x02			'R'	'A'	'I'	'2'		RAI 2
	0x39	0x03			'R'	'A'	'I'	'3'		RAI 3
	0xFA	0x04			'R'	'E'	'T'	'E'	'4'	RETE 4
	0x39	0x04			'R'	'E'	'T'	'E'	'A'	RETE A
	0xFA	0x05			'C'	'A'	'N'	'5'		CANALE 5
	0xFA	0x06			'I'	'T'	'A'	'1'		ITALIA 1
	0xFA	0x08				'T'	'M'	'C'		TMC
	0x39	0x97			'T'	'E'	'L'	'1'		TELE+1
	0x39	0x98			'T'	'E'	'L'	'2'		TELE+2
	0x39	0x99			'T'	'E'	'L'	'3'		TELE+3
	0x39	0x10			'T'	'R'	'S'	'T'	'V'	TRS TV
	0x39	0x0A			'A'	'R'	'T'	'E'		Arte
	0x39	0x38			'R'	'T'	'V'	'3'	'8'	RTV 38
Spain	0x3E	0x00			'T'	'V'	'E'	'1'		TVE1
	0xE1	0x00			'T'	'V'	'E'	'2'		TVE2
	0xCA	0x03				'T'	'V'	'3'		TV3
	0xBA	0x01			'E'	'T'	'B'	'1'		ETB1
	0x34	0x02			'E'	'T'	'B'	'2'		ETB2
	0xCA	0x33				'C'	'3'	'3'		C33

Country	8/30 format 1		8/30 format 2		Name					Network
	0x34	0x0A			'A'	'R'	'T'	'E'		Arte
Belgium	0x32	0x01	**0x16**	**0x01**	'B'	'R'	'T'	'N'		BRT TV1
	0x32	0x02	**0x16**	**0x02**		'T'	'V'	'2'		CANVAS
	0x32	0x03			'R'	'T'	'B'	'F'	'1'	RTBF1
	0x32	0x04			'R'	'T'	'B'	'F'	'2'	RTBF2
	0x32	0x05	**0x16**	**0x05**		'V'	'T'	'M'		VTM
	0x32	0x06	**0x16**	**0x06**		'K'	'A'	'2'		Kanaal2
	0x04	0x04	**0x16**	**0x04**		'V'	'T'	'4'		VT 4
Denmark	0x73	0x92	**0x29**	**0x01**		'D'	'R'	'1'		DR1
	0x49	0xCF	**0x29**	**0x03**		'D'	'R'	'2'		DR2
	0x45	0x02	**0x29**	**0x02**		'T'	'V'	'2'		TV2
Finland	0x35	0x81	**0x26**	**0x01**	'Y'	'L'	'E'	'1'		YLE1
	0x35	0x82	**0x26**	**0x02**	'Y'	'L'	'E'	'2'		YLE2
	0x35	0x8F	**0x26**	**0x0F**	'O'	'W'	'L'	'3'		OWL3
Netherlands	0x31	0x01	**0x48**	**0x01**	'N'	'E'	'D'	'1'		Nederland 1
	0x31	0x02	**0x48**	**0x02**	'N'	'E'	'D'	'2'		Nederland 2
	0x31	0x03	**0x48**	**0x03**	'N'	'E'	'D'	'3'		Nederland 3
	0x31	0x04	**0x48**	**0x04**	'R'	'T'	'L'	'4'		RTL4
	0x31	0x05	**0x48**	**0x05**	'R'	'T'	'L'	'5'		RTL5
	0x31	0x06	**0x48**	**0x06**	'V'	'E'	'R'	'O'	'N'	// Veronica
Norway	0x47	0x01			'N'	'R'	'K'	'1'		NRK1
	0x47	0x03			'N'	'R'	'K'	'2'		NRK2
	0x47	0x02				'T'	'V'	'2'		TV2
	0x47	0x04			'T'	'V'	' '	'N'		TV Norge
Sweden	0x46	0x01	**0x4E**	**0x01**	'S'	'V'	'T'	'1'		SVT 1
	0x46	0x02	**0x4E**	**0x02**	'S'	'V'	'T'	'2'		SVT 2
	0x46	0x40	**0x4E**	**0x40**		'T'	'V'	'4'		TV 4
Poland	0x48	0x01			'T'	'V'	'P'	'1'		SVT 1
	0x48	0x02			'T'	'V'	'P'	'2'		SVT 2
	0x48	0x10			'T'	'V'	'P'	'O'	'L'	TV Polonia
Hungary	0x36	0x01			'M'	'T'	'V'	'1'		MTV1
	0x36	0x11								MTV1 regional, Budapest
	0x36	0x51								MTV1 regional, Debrecen
	0x36	0x61								MTV1 regional, Miskolc
	0x36	0x21								MTV1 regional, Pécs
	0x36	0x31								MTV1 regional, Szeged
	0x36	0x41								MTV1 regional, Szombathely
	0x36	0x02			'M'	'T'	'V'	'2'		MTV2

Country	8/30 format 1		8/30 format 2		Name					Network
	0x36	0x02			'M'	'T'	'V'	'2'		
Country	**8/30 format 1**		**8/30 format 2**		**Name**					**Network**
	0x36	0x36			'D'	'U'	'N'	'A'		// Duna Televizio
	0x36	0x22				'T'	'V'	'2'		// tv2
Czech Republic	0x42	0x01	**0x32**	**0xC1**	'C'	'T'		'1'		CT 1
	0x42	0x31	**0x32**	**0xF1**						CT1 Regional
	0x42	0x11	**0x32**	**0xD1**						CT1 Regional, Brno
	0x42	0x21	**0x32**	**0xE1**						CT1 Regional, Ostravia
	0x42	0x02	**0x32**	**0xC2**	'C'	'T'		'2'		CT 2
	0x42	0x32	**0x32**	**0xF2**						CT2 Regional
	0x42	0x12	**0x32**	**0xD2**						CT2 Regional, Brno
	0x42	0x22	**0x32**	**0xE2**						CT2 Regional, Ostravia
	0x42	0x03	**0x32**	**0xC3**	'N'	'O'	'V'	'A'		NOVA TV
Ireland	0x35	0x31	**0x42**	**0x01**	'R'	'T'	'E'	'1'		RTE1
	0x35	0x32	**0x42**	**0x02**	'N'	'E'	'T'	'2'		Network 2
	0x35	0x33	**0x42**	**0x03**		'T'	'G'	'4'		// Teilifis na Gaeilge
	0x35	0x33				'T'	'V'	'3'		TV3
Germany	0x49	0x02				'Z'	'D'	'F'		ZDF
	0x49	0x0C				'V'	'O'	'X'		VOX Television
	0x49	0x0A			'A'	'R'	'T'	'E'		Arte
	0x49	0x49				'Q'	'V'	'C'		QVC D Gmbh
	0x49	**0xE4**			**'W'**	**'D'**	**'R'**	**'-'**	**'3'**	**WDR-3**
Portugal	0x35	0x10			'R'	'T'	'P'	'1'		RTP1
	0x35	0x11			'R'	'T'	'P'	'2'		RTP2
	0x35	0x12			'R'	'T'	'P'	'A'	'F'	RTPAF
	0x35	0x14			'R'	'T'	'P'	'A'	'Z'	RTPAZ
	0x35	0x13			'R'	'T'	'P'	'I'		RTPI
	0x35	0x15			'R'	'T'	'P'	'M'		RTPM
Slovakia	0x42	0xA1	**0x35**	**0xA1**	'S'	'T'	'V'	'1'		STV1
	0x42	0xA3	**0x35**	**0xA3**	'S'	'T'	'V'	'1'		// STV1 Regional, Košice
	0x42	0xA5	**0x35**	**0xA5**						// STV1 Regional, B. Bystrica
	0x42	0xA2	**0x35**	**0xA2**	'S'	'T'	'V'	'2'		STV2
	0x42	0xA4	**0x35**	**0xA4**						// STV2 Regional, Ko ce
	0x42	0xA6	**0x35**	**0xA6**						// STV2 Regional, B. Bystrica
Switzerland	0x41	0x01	**0x24**	**0xC1**	'S'	'F'	' '	'1'		SF1
	0x41	0x02	**0x24**	**0xC2**	'T'	'S'	'R'	'1'		SF2
	0x41	0x03	**0x24**	**0xC3**	'T'	'S'	'I'	'1'		TSI 1
	0x41	0x07	**0x24**	**0xC7**	'S'	'F'	' '	'2'		SF 2
	0x41	0x08	**0x24**	**0xC8**	'T'	'S'	'R'	'2'		TSR 2
	0x41	0x09	**0x24**	**0xC9**	'T'	'S'	'I'	'2'		TSI 2

	0x41	0x0A	**0x24**	**0xCA**	'S'	'R'	'G'	'S'	'A'	// SAT ACCESS

- SCART connector
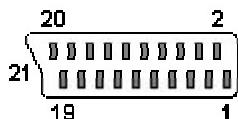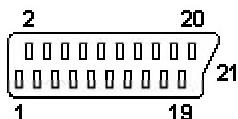
At the TV (Female)   At the cable (Male)

Pin	Description	Signal Level	Impedance
1	Audio Out Right	0.5 V rms	<1k ohm
2	Audio In Right	0.5 V rms	>10k ohm
3	Audio Out Left	0.5 V rms	<1k ohm
4	Audio Ground		
5	RGB Blue Ground		
6	Audio In Left	0.5 V rms	>10k ohm
7	RGB Blue In	0.7 V±3 dB	75 ohm
8	Slow switch In	TV: 0-2 V AV: 4.5-12 V	>10k ohm
9	RGB Green Ground		
10	N.C		
11	RGB Green In	0.7 V±3 dB	75 ohm
12	N.C		
13	RGB Red Ground		
14	RGB status Ground		
15	RGB Red In	0.7 V ±3 dB	75 ohm
16	Blanking Signal (RGB status)	RGB: 1-3 V TV/AV: 0-0.4 V	75 ohm
17	Composite Video Ground (Sync Ground)		
18	Blanking Signal Ground		
19	Composite Video Out	1 V±3 dB	75 ohm
20	Composite Video In (Luminance In)	1 V±3 dB	75 ohm
21	Ground/Shield (Chassis)		

- S-Video connector

At the TV (Female)

Pin	Name	Description
1	GND	Ground (Y)
2	GND	Ground (C)
3	Y	Intensity (Luminance)
4	C	Color (Chrominance)

ALIGNMENT INSTRUCTION

Service Mode

If you replace the EEPROM by a new (blank) one, the EEPROM data will be initialized as follows;

Item	Default values
BLU brightness	0
Teletext	W-Euro
SCART	Yes

You can change the values in the Service mode, if necessary.

To switch the TV set into Service mode, press the

Digit 1 key   Mute key   Status key   Mute key

in sequence within 5 seconds.
In the Service mode, the OSD "Service" will be displayed.
To exit Service mode, press and hold (for 1.5 second) the **Mute key**.

Digit 4 KEY (Picture adjustment)
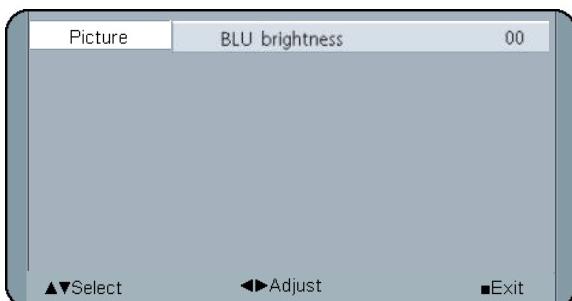
1. Press the Digit 4 key to call up the Picture adjustment menu.
2. Set the BLU(back Light Unit) brightness to "0".

Digit 5 key (Option setting)
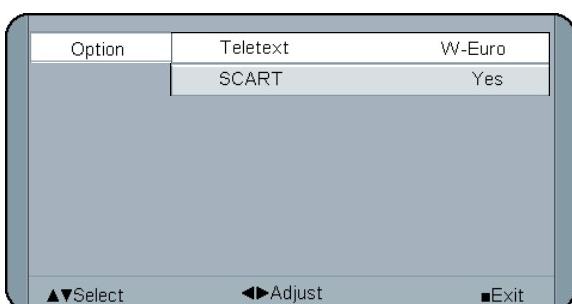
1. Press the Digit 5 key to call up the Option setting menu.
2. Set the Options as follow;

Teletext option
You must select the Teletext language according to your country.
Select one of the following: **W-Euro, E-Euro, RUS, GR-TR, Arab, No**.

	Teletext language	Area
W-Euro	West European	West/North Europe, Australia, Asia, Africa
E-Euro	East European	East Europe
RUS	Cyrillic	Russia / Bulgaria
GR-TR	Greek/Turkish	Greece/Turkey
Arab	Arabic/French	Middle East/Africa
No	I301(SAA6264) is not used	Without Teletext

SCART option
Choose **Yes** if J503 is SCART connector, and **No** if RCA connector.

	J503 (Connector)	Area
Yes	SCART	Europe, *Russia*
No	RCA	China, Asia, Middle East, Australia, *Africa*

Digit 8 key, LEFT + UP + AV key (EEPROM clear)
This key is used to perform control/system lock up reset.
Use this key to clear EEPROM data if TV have malfunctioned, e.g. local control lock up.
Note that the stored data will be erased and initialized to default values after initializing EEPROM.

You can clear EEPROM data by pressing the **LEFT(VOLUME DOWN), (PR) UP and AV key** on the TV set at the same time in the Stand-by mode.
Use this, if you can not switch your TV set on in the Stand-by mode.

Factory Mode

Remark: These modes are used for factory only.

Digit 1 Key (Heat-run & Test pattern mode)
Pressing this key, the Test pattern will be displayed as follow;
Normal   White pattern   Red pattern   Green pattern   Blue pattern   Normal
Note that you can exit from this mode with this key only.

Digit 2 key (Picture Control Checking)
Pressing this key, the Picture control value will be changed in sequence automatically.
Brightness (min max center)   Contrast (min max center)   Colour (min max center)
Sharpness (min max center)   Tint (left right center)   Normal

Digit 3 Key (Sound Control Checking)
Pressing this key, the Sound control value will be changed in sequence automatically.
Treble (min max center)   Bass (min max center)   Balance (left right center)
Volume (min max center)

Digit 6 key (Outgoing)
Pressing this key, OSD "Outgoing" will be displayed during initializing the EEPROM data,
and then the set will be turned off automatically.

No.	Item	Data	No.	Item	Data
1	CH data (PR0-99)	CH52	2	Station Name	- - - - -
3	SKIP (PR2-99)	Yes	4	System	- -
5	Colour	- - -	6	Fine tune	center
7	Bri /Cont/Col/Sharp	Normal	8	Treble/Bass/Balance	Center
9	Sound Spatial	No	10	Sound Forced Mono	Off
11	Volume	30/100	12	Child lock	No
13	OSD	Opaque	14	Language	English
15	TV shape	4:3			

When you turn on the TV set for the first time, the **Language** menu for the on-screen display appears.

BLOCK DIAGRAM

PAL LCD TV Block Diagram 2002.6.25 Ver.1
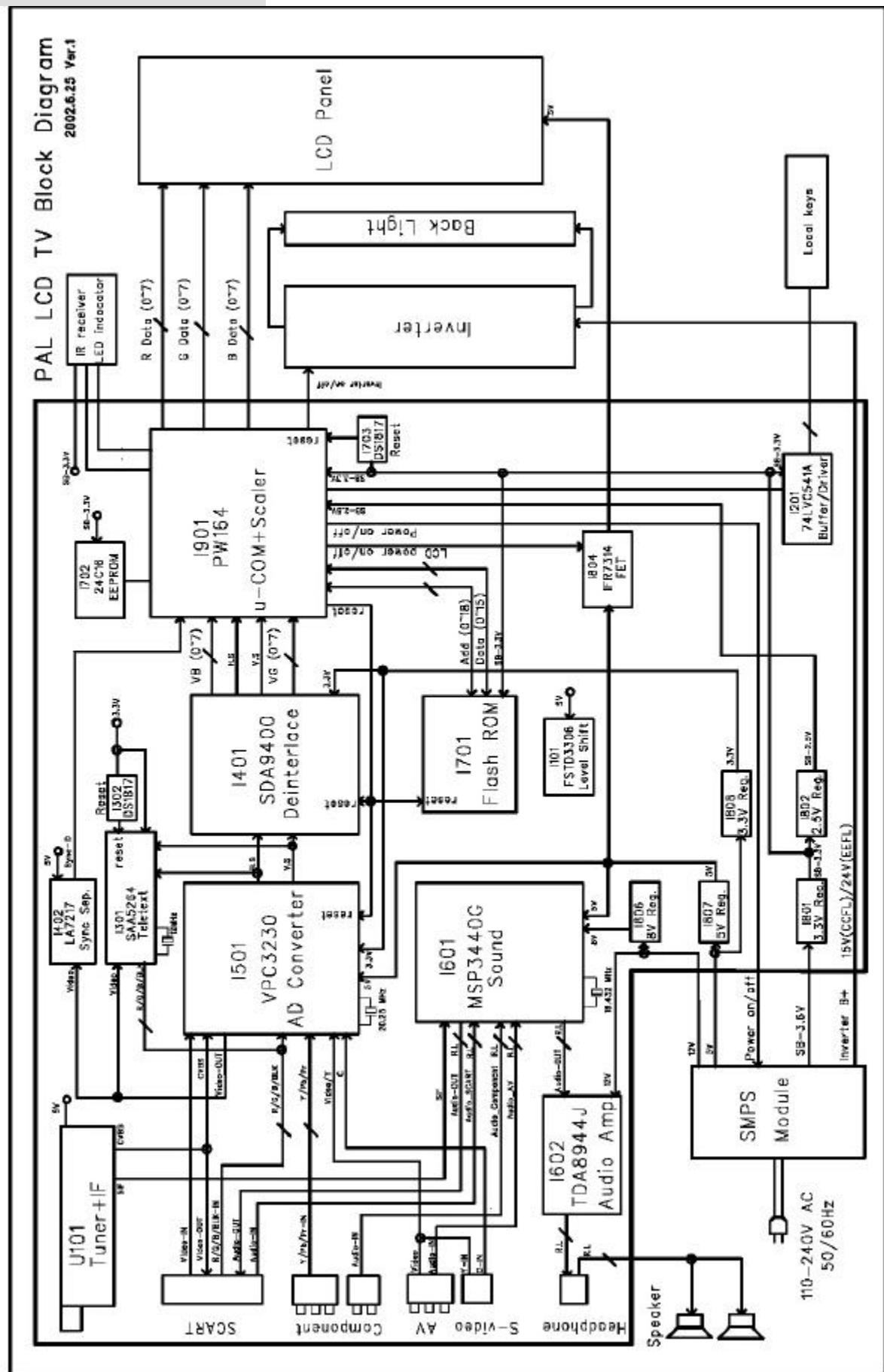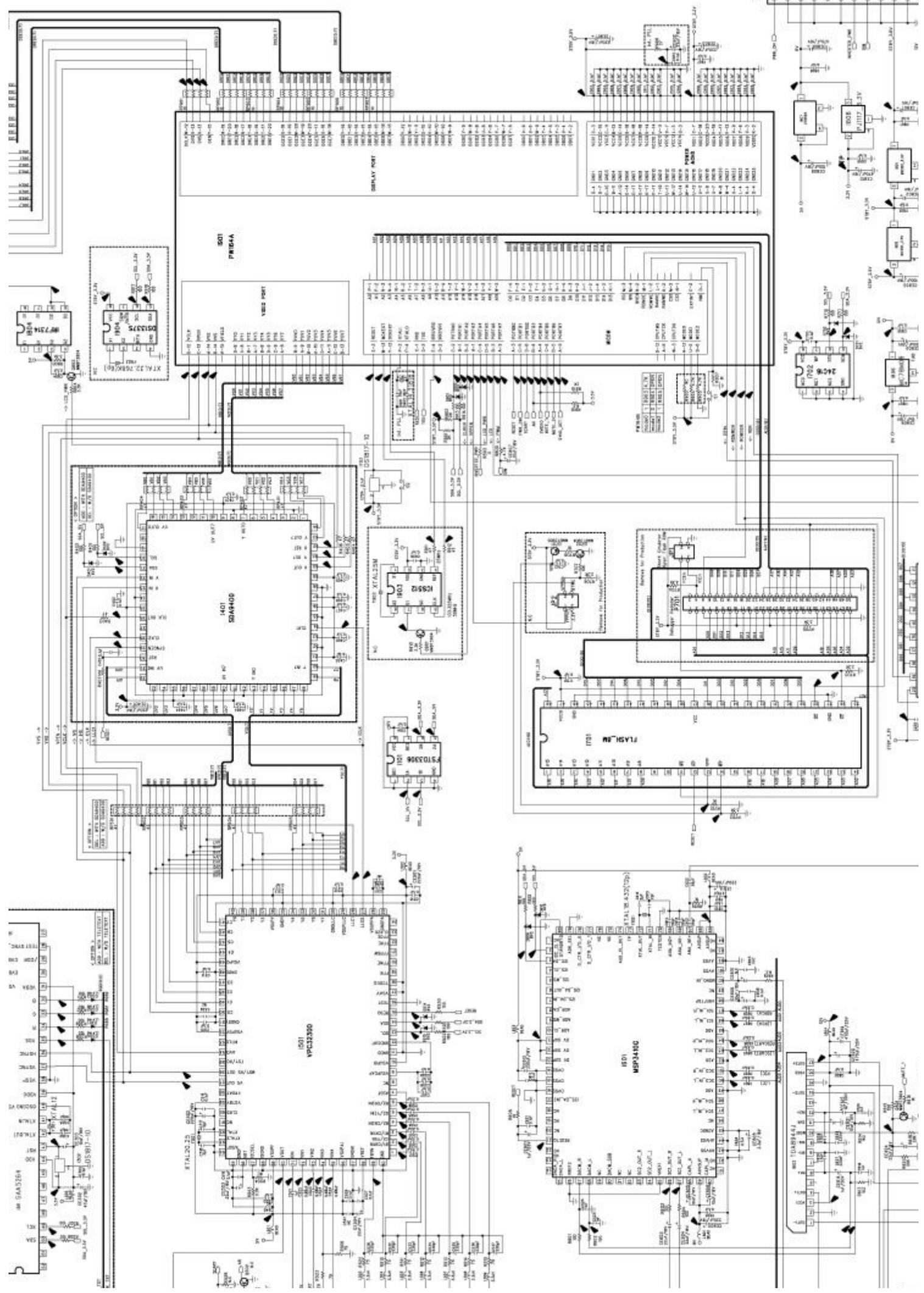
SCHEMATIC DIAGRAM
Power board
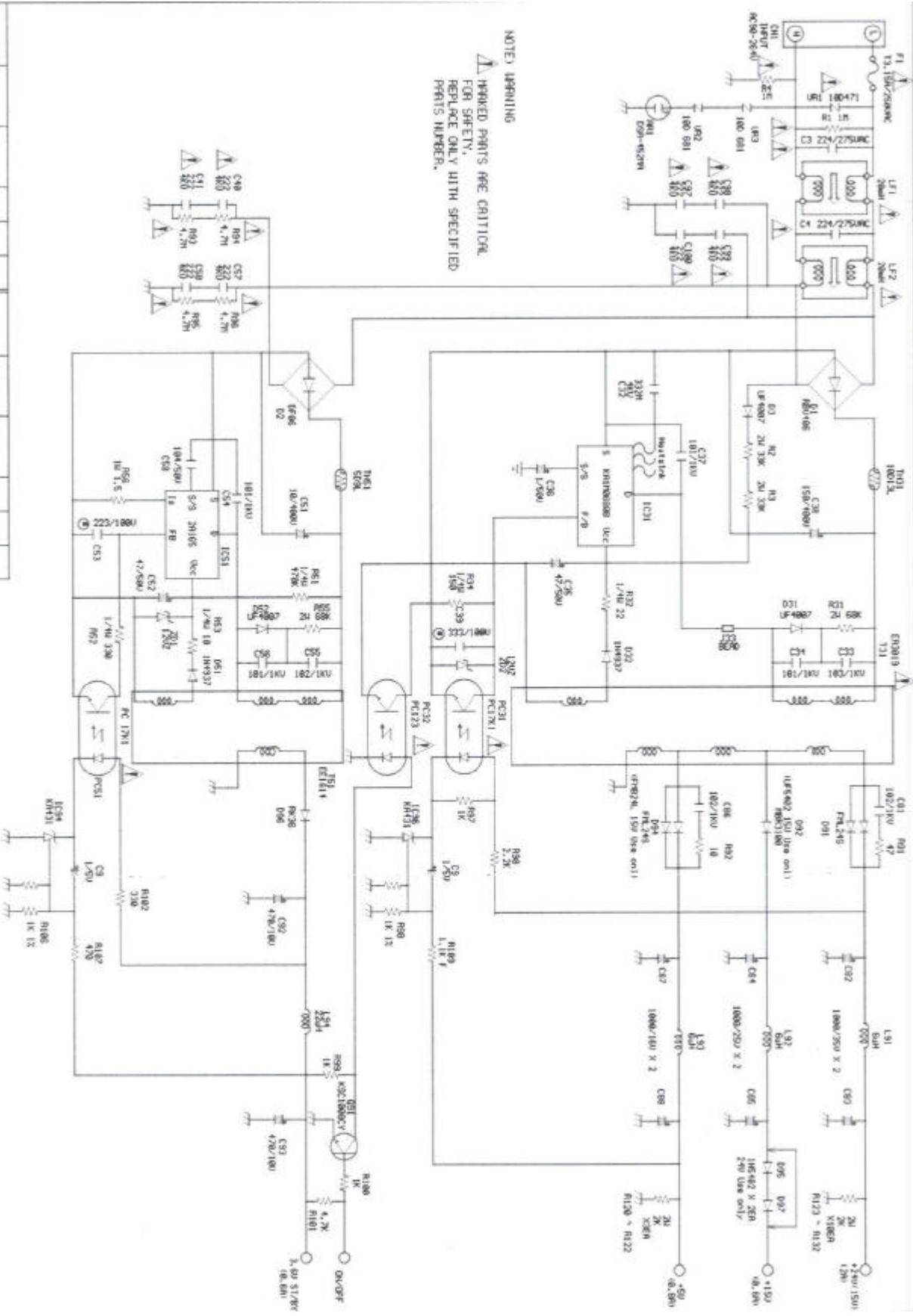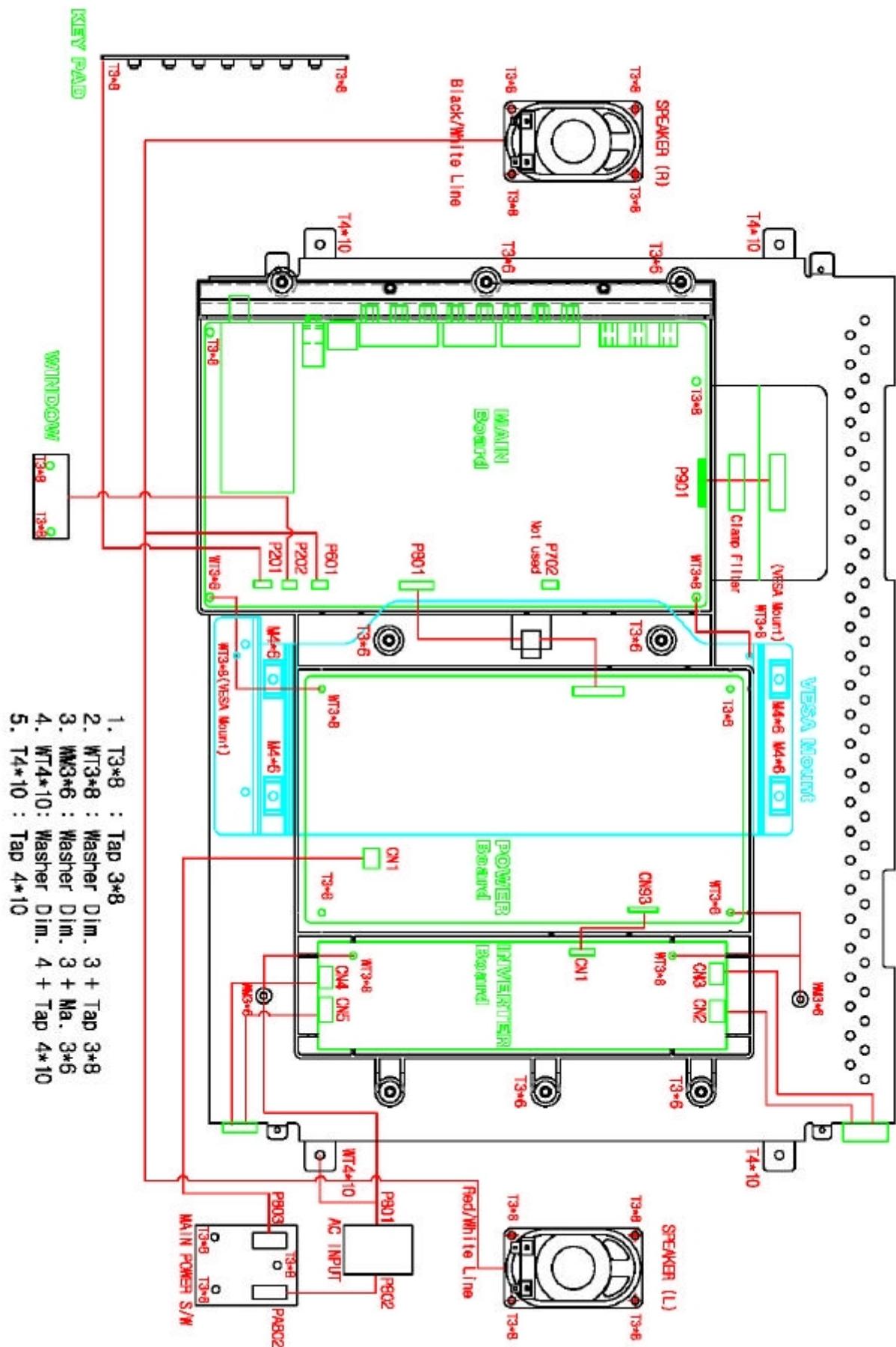
SCHEMATIC DIAGRAM
Inverter (CCFL)
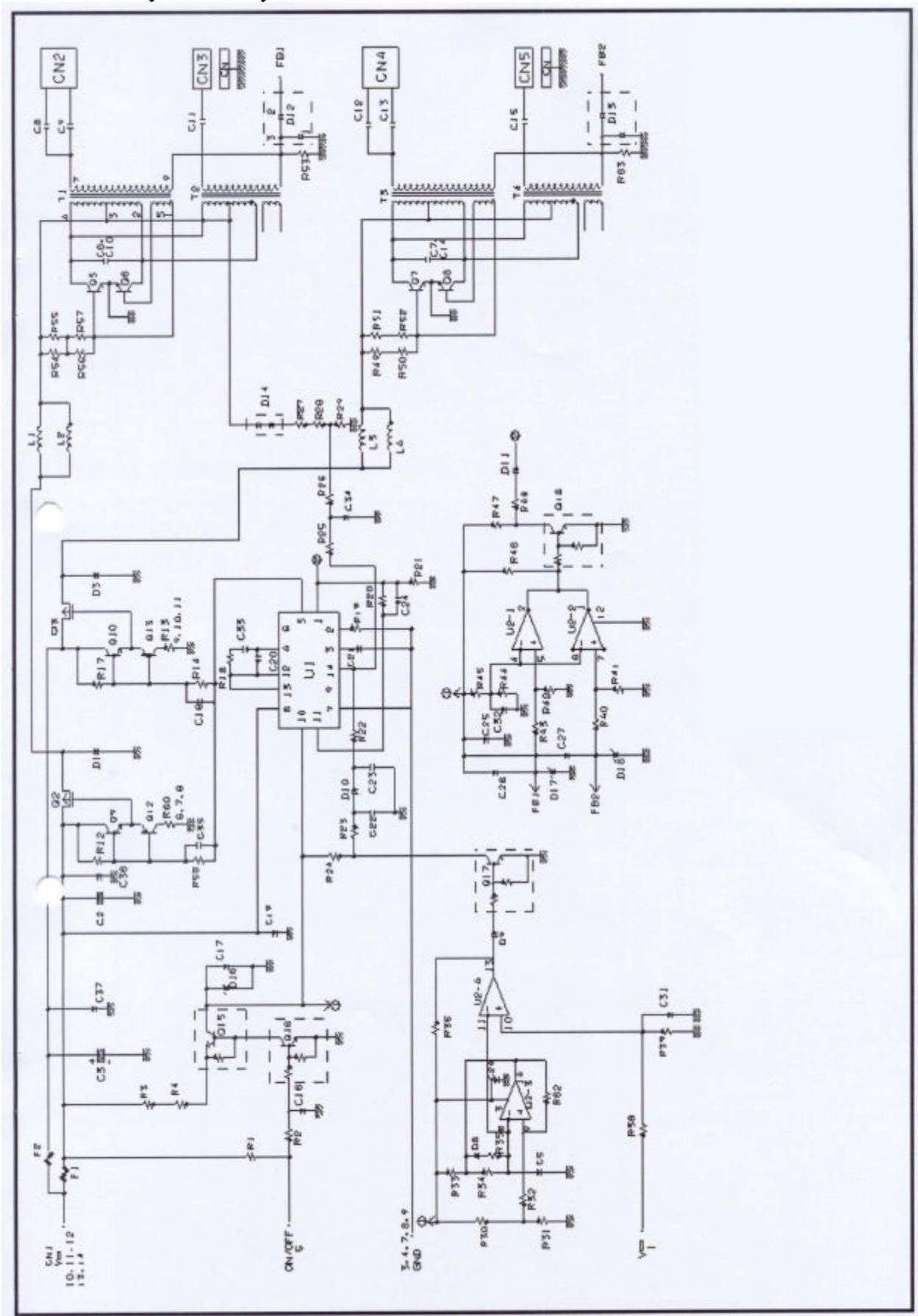
SCHEMATIC DIAGRAM
Sub board

IR_led.sch-1 - Thu Sep 19 17:02:08 2002
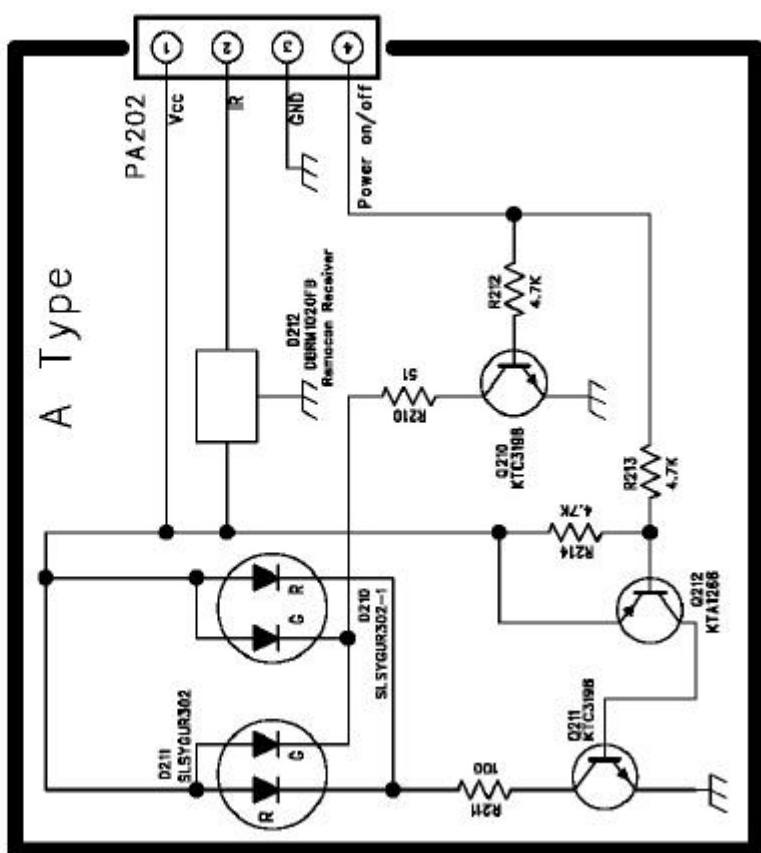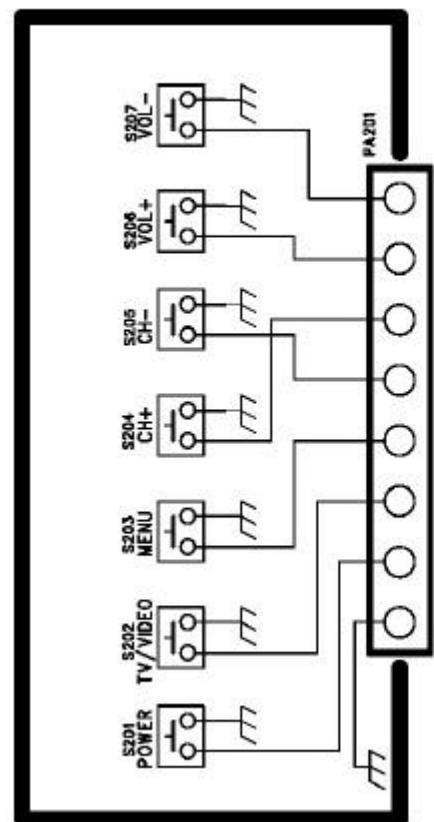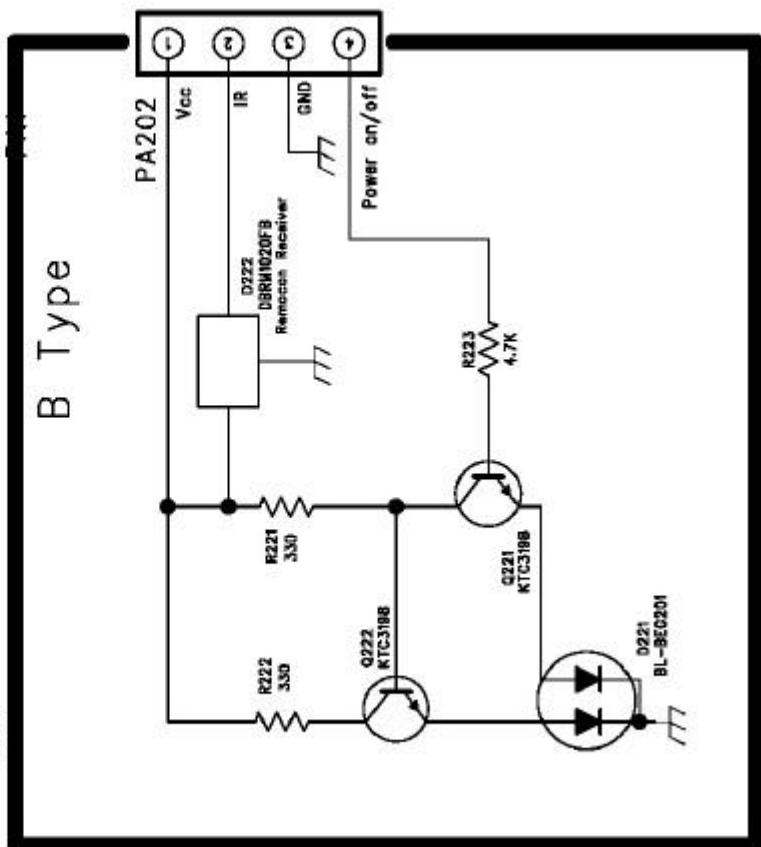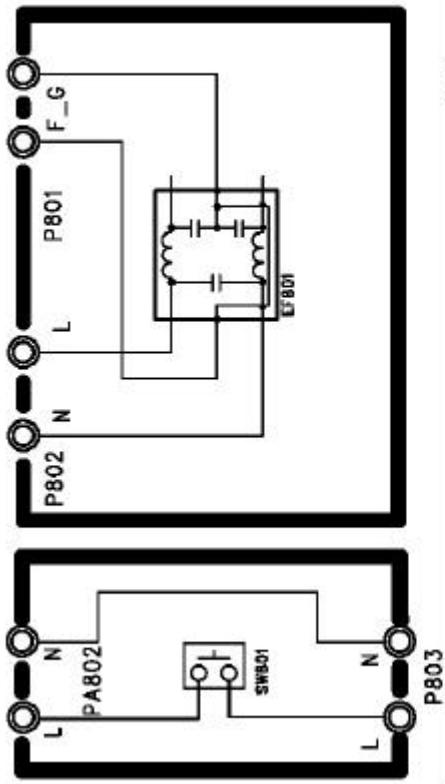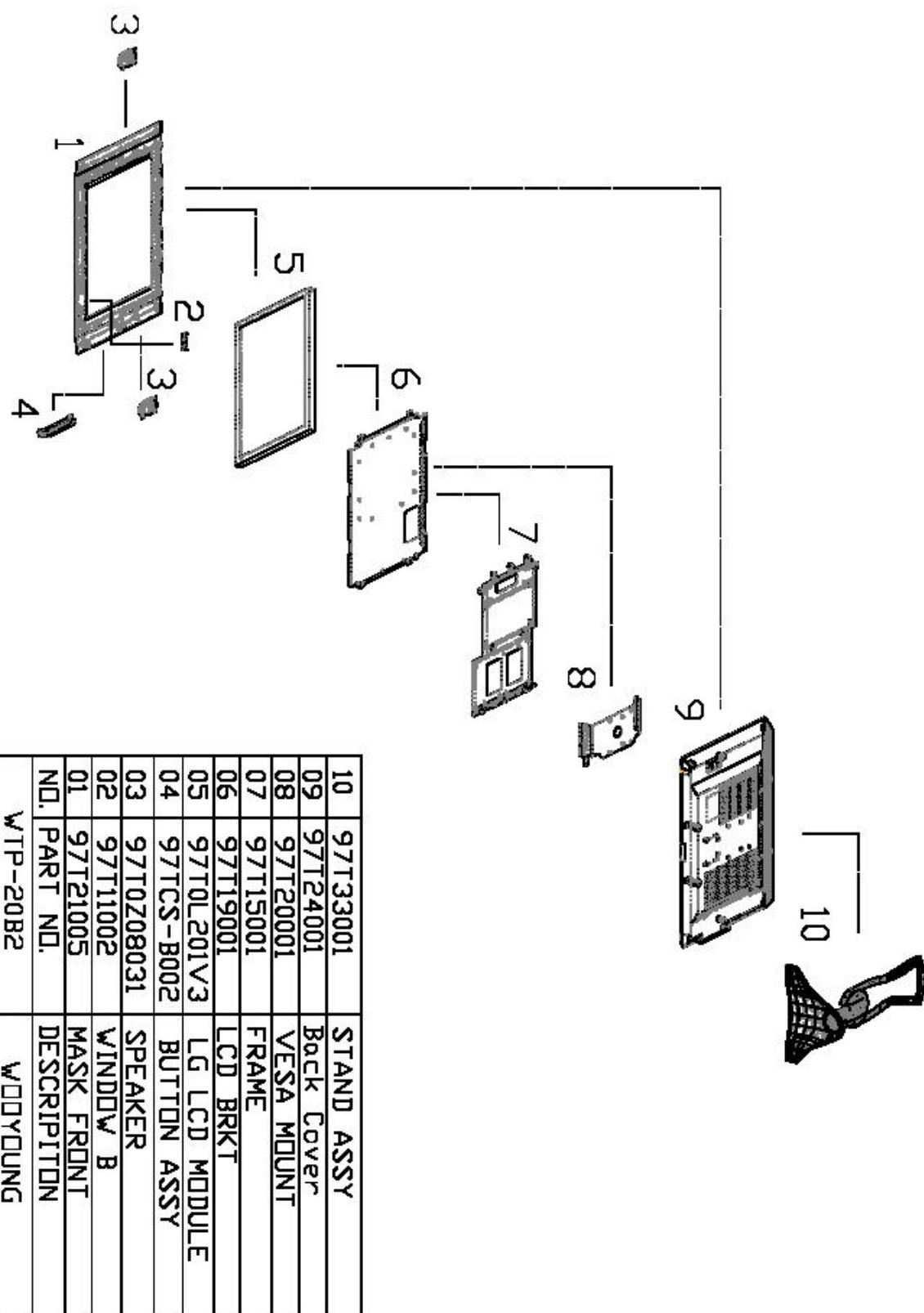
NO.	PART NO.	DESCRIPTION
01	97T21005	MASK FRONT
02	97T11002	WINDOW B
03	97T0Z08031	SPEAKER
04	97TCS-B002	BUTTON ASSY
05	97T0L201V3	LG LCD MODULE
06	97T19901	LCD BRKT
07	97T15001	FRAME
08	97T20001	VESA MOUNT
09	97T24001	Back Cover
10	97T33001	STAND ASSY
	WTP-20B2	WOOYOUNG

WIRING DIAGRAM

ELECTRICAL PARTS LIST

Caution: ⚠ is safety component, so it must be used the same component.
         ® is recommendable part for stock.

Main Board
(WTP-20A2)

No	Part No	Name	Desc	Remark
1	C101	C CHIP CERA	25V X7R 56PF J 1608	
2	C102	C CHIP CERA	25V X7R 56PF J 1608	
3	C103	C CHIP CERA	25V Y5V 0.1uF Z 1608	
4	C104	C CHIP CERA	25V Y5V 0.1uF Z 1608	
5	C201	C CHIP CERA	25V Y5V 0.1uF Z 1608	
6	C301	C CHIP CERA	25V Y5V 0.1uF Z 1608	
7	C302	C CHIP CERA	25V X7R 56PF J 1608	
8	C303	C CHIP CERA	25V X7R 56PF J 1608	
9	C304	C CHIP CERA	25V Y5V 0.1uF Z 1608	
10	C305	C CHIP CERA	25V Y5V 0.1uF Z 1608	
11	C401	C CHIP CERA	25V Y5V 0.1uF Z 1608	
12	C402	C CHIP CERA	25V Y5V 0.1uF Z 1608	
13	C403	C CHIP CERA	25V Y5V 0.1uF Z 1608	
14	C404	C CHIP CERA	25V Y5V 0.1uF Z 1608	
15	C405	C CHIP CERA	25V Y5V 0.1uF Z 1608	
16	C406	C CHIP CERA	25V Y5V 0.1uF Z 1608	
17	C407	C CHIP CERA	25V Y5V 0.1uF Z 1608	
18	C408	C CHIP CERA	25V Y5V 0.1uF Z 1608	
19	C409	C CHIP CERA	25V Y5V 0.1uF Z 1608	
20	C410	C CHIP CERA	25V Y5V 0.1uF Z 1608	
21	C411	C CHIP CERA	10V Y5V 1uF Z 1608	
22	C412	C CHIP CERA	25V Y5V 0.056uF Z 1608	
23	C413	C CHIP CERA	25V Y5V 0.022uF Z 1608	
24	C414	C CHIP CERA	25V X7R 820PF K 1608	
25	C415	C CHIP CERA	10V Y5V 1uF Z 1608	
26	C416	C CHIP CERA	25V Y5V 0.01uF Z 1608	
27	C501	C CHIP CERA	25V Y5V 0.22uF Z 1608	
28	C502	C CHIP CERA	25V Y5V 0.22uF Z 1608	
29	C503	C CHIP CERA	25V Y5V 0.22uF Z 1608	
30	C504	C CHIP CERA	25V Y5V 0.22uF Z 1608	
31	C505	C CHIP CERA	25V Y5V 0.22uF Z 1608	
32	C506	C CHIP CERA	25V Y5V 0.22uF Z 1608	
33	C507	C CHIP CERA	25V Y5V 0.1uF Z 1608	
34	C508	C CHIP CERA	25V Y5V 0.1uF Z 1608	
35	C509	C CHIP CERA	25V Y5V 0.1uF Z 1608	
36	C510	C CHIP CERA	25V Y5V 0.1uF Z 1608	
37	C511	C CHIP CERA	25V Y5V 0.1uF Z 1608	
38	C512	C CHIP CERA	25V Y5V 0.1uF Z 1608	
39	C513	C CHIP CERA	25V Y5V 0.1uF Z 1608	
40	C514	C CHIP CERA	25V Y5V 0.1uF Z 1608	
41	C515	C CHIP CERA	25V Y5V 0.1uF Z 1608	
42	C516	C CHIP CERA	25V Y5V 0.1uF Z 1608	
43	C517	C CHIP CERA	25V NPO 3PF C 1608	
44	C518	C CHIP CERA	25V NPO 3PF C 1608	
45	C519	C CHIP CERA	25V Y5V 0.1uF Z 1608	

No	Part No	Name	Desc	Remark
46	C520	C CHIP CERA	25V Y5V 0.1uF Z 1608	
47	C521	C CHIP CERA	25V X7R 0.001UF K 1608	
48	C522	C CHIP CERA	25V Y5V 0.68uF Z 1608	
49	C523	C CHIP CERA	25V Y5V 0.68uF Z 1608	
50	C524	C CHIP CERA	25V Y5V 0.68uF Z 1608	
51	C525	C CHIP CERA	25V Y5V 0.68uF Z 1608	
52	C526	C CHIP CERA	25V Y5V 0.1uF Z 1608	
53	C527	C CHIP CERA	25V Y5V 0.1uF Z 1608	
54	C528	C CHIP CERA	25V X7R 330PF J 1608	
55	C532	C CHIP CERA	25V X7R 330PF J 1608	
56	C533	C CHIP CERA	25V X7R 330PF J 1608	
57	C534	C CHIP CERA	25V X7R 330PF J 1608	
58	C535	C CHIP CERA	25V X7R 330PF J 1608	
59	C536	C CHIP CERA	25V X7R 330PF J 1608	
60	C537	C CHIP CERA	25V X7R 330PF J 1608	
61	C601	C CHIP CERA	25V Y5V 0.33uF Z 1608	
62	C602	C CHIP CERA	25V Y5V 0.33uF Z 1608	
63	C603	C CHIP CERA	25V Y5V 0.1uF Z 1608	
64	C604	C CHIP CERA	25V Y5V 0.1uF Z 1608	
65	C605	C CHIP CERA	25V Y5V 0.33uF Z 1608	
66	C606	C CHIP CERA	25V Y5V 0.33uF Z 1608	
67	C607	C CHIP CERA	25V Y5V 0.33uF Z 1608	
68	C608	C CHIP CERA	25V Y5V 0.33uF Z 1608	
69	C609	C CHIP CERA	25V Y5V 0.1uF Z 1608	
70	C610	C CHIP CERA	25V X7R 1500PF K 1608	
71	C611	C CHIP CERA	25V X7R 470PF J 1608	
72	C612	C CHIP CERA	25V X7R 56PF J 1608	
73	C613	C CHIP CERA	25V X7R 56PF J 1608	
74	C614	C CHIP CERA	25V X7R 56PF J 1608	
75	C615	C CHIP CERA	25V NPO 2PF JC 1608	
76	C616	C CHIP CERA	25V NPO 2PF JC 1608	
77	C617	C CHIP CERA	25V Y5V 0.1uF Z 1608	
78	C618	C CHIP CERA	25V X7R 0.001UF K 1608	
79	C619	C CHIP CERA	25V X7R 0.001UF K 1608	
80	C620	C CHIP CERA	25V Y5V 0.1uF Z 1608	
81	C621	C CHIP CERA	25V Y5V 0.1uF Z 1608	
82	C622	C CHIP CERA	25V X7R 56PF J 1608	
83	C624	C CHIP CERA	25V X7R 0.015UF K 1608	
84	C625	C CHIP CERA	25V X7R 0.015UF K 1608	
85	C626	C CHIP CERA	25V X7R 1500PF K 1608	
86	C627	C CHIP CERA	25V Y5V 0.22uF Z 1608	
87	C628	C CHIP CERA	25V X7R 1500PF K 1608	
88	C629	C CHIP CERA	25V Y5V 0.22uF Z 1608	
89	C701	C CHIP CERA	25V Y5V 0.1uF Z 1608	
90	C702	C CHIP CERA	25V Y5V 0.1uF Z 1608	
91	C703	C CHIP CERA	25V Y5V 0.1uF Z 1608	
92	C704	C CHIP CERA	25V Y5V 0.1uF Z 1608	
93	C801	C CHIP CERA	25V Y5V 0.1uF Z 1608	
94	C802	C CHIP CERA	25V Y5V 0.1uF Z 1608	
95	C804	C CHIP CERA	25V Y5V 0.1uF Z 1608	

No	Part No	Name	Desc	Remark
96	C806	C CHIP CERA	25V Y5V 0.1uF Z 1608	
97	C807	C CHIP CERA	25V Y5V 0.1uF Z 1608	
98	C808	C CHIP CERA	25V Y5V 0.1uF Z 1608	
99	C809	C CHIP CERA	25V Y5V 0.1uF Z 1608	
100	C901	C CHIP CERA	25V NPO 18PF J 1608	
101	C902	C CHIP CERA	25V NPO 18PF J 1608	
102	C903	C CHIP CERA	25V Y5V 0.1uF Z 1608	
103	C904	C CHIP CERA	25V Y5V 0.1uF Z 1608	
104	C905	C CHIP CERA	25V Y5V 0.1uF Z 1608	
105	C906	C CHIP CERA	25V Y5V 0.1uF Z 1608	
106	C907	C CHIP CERA	25V Y5V 0.1uF Z 1608	
107	C908	C CHIP CERA	25V Y5V 0.1uF Z 1608	
108	C909	C CHIP CERA	25V Y5V 0.1uF Z 1608	
109	C910	C CHIP CERA	25V Y5V 0.1uF Z 1608	
110	C911	C CHIP CERA	25V Y5V 0.1uF Z 1608	
111	C912	C CHIP CERA	25V Y5V 0.1uF Z 1608	
112	C913	C CHIP CERA	25V Y5V 0.1uF Z 1608	
113	C914	C CHIP CERA	25V Y5V 0.1uF Z 1608	
114	C915	C CHIP CERA	25V Y5V 0.1uF Z 1608	
115	C916	C CHIP CERA	25V Y5V 0.1uF Z 1608	
116	C917	C CHIP CERA	25V Y5V 0.1uF Z 1608	
117	C918	C CHIP CERA	25V Y5V 0.1uF Z 1608	
118	C919	C CHIP CERA	25V Y5V 0.1uF Z 1608	
119	C920	C CHIP CERA	25V Y5V 0.1uF Z 1608	
120	C921	C CHIP CERA	25V Y5V 0.1uF Z 1608	
121	C922	C CHIP CERA	25V Y5V 0.1uF Z 1608	
122	C923	C CHIP CERA	25V Y5V 0.1uF Z 1608	
123	C924	C CHIP CERA	25V Y5V 0.1uF Z 1608	
124	C925	C CHIP CERA	25V Y5V 0.1uF Z 1608	
125	C926	C CHIP CERA	25V Y5V 0.1uF Z 1608	
126	CE101	C CHIP ELECTRO	16V 100uF (6.3X5.5) TP	
127	CE102	C CHIP ELECTRO	16V 47uF (5X5.5) TP	
128	CE103	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
129	CE301	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
130	CE302	C CHIP ELECTRO	16V 47uF (5X5.5) TP	
131	CE303	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
132	CE401	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
133	CE501	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
134	CE502	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
135	CE503	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
136	CE504	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
137	CE601	C CHIP ELECTRO	50V 1uF (4X5.5) TP	
138	CE603	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
139	CE604	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
140	CE605	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
141	CE606	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
142	CE607	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
143	CE608	C CHIP ELECTRO	16V 3.3uF (4X5.5) TP	
144	CE609	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
145	CE611	C CHIP ELECTRO	16V 220uF (8X10.5) TP	

No	Part No	Name	Desc	Remark
146	CE612	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
147	CE614	C CHIP ELECTRO	50V 1uF (4X5.5) TP	
148	CE615	C CHIP ELECTRO	50V 1uF (4X5.5) TP	
149	CE619	C CHIP ELECTRO	25V 470uF (8X10.5) TP	
150	CE620	C CHIP ELECTRO	25V 470uF (8X10.5) TP	
151	CE621	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
152	CE622	C CHIP ELECTRO	16V 47uF (5X5.5) TP	
153	CE623	C CHIP ELECTRO	16V 47uF (5X5.5) TP	
154	CE624	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
155	CE801	C CHIP ELECTRO	16V 470uF (8X10.5) TP	
156	CE802	C CHIP ELECTRO	16V 470uF (8X10.5) TP	
157	CE803	C CHIP ELECTRO	16V 100uF (6.3X5.5) TP	
158	CE805	C CHIP ELECTRO	25V 100uF (8X10) TP	
159	CE806	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
160	CE807	C CHIP ELECTRO	16V 10uF (4X5.5) TP	
161	CE808	C CHIP ELECTRO	16V 470uF (8X10.5) TP	
162	CE809	C CHIP ELECTRO	16V 100uF (6.3X5.5) TP	
163	CE810	C CHIP ELECTRO	16V 470uF (8X10.5) TP	
164	CE901	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
165	CE902	C CHIP ELECTRO	16V 22uF (4X5.5) TP	
166	CE903	C CHIP ELECTRO	16V 220uF (8X10.5) TP	
167	D210	CHIP DUAL LED	SLSGUR302TN	
168	D211	CHIP DUAL LED	SLSGUR302TN	
169	D212	IR RECEIVER	BRM-1020-FB4.3	
170	D301	CHIP DIODE	EDS914	
171	D302	CHIP DIODE	EDS914	
172	D303	CHIP DIODE	EDS914	
173	D304	CHIP DIODE	EDS914	
174	D511	CHIP DIODE ZENER	ZENER 3.3V	
175	EF801	EMI FILTER	IG-0242P	
176	EF802	FILTER CLAMP	ZSHT1228-0730-S-K	
177	F601	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
178	F602	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
179	F603	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
180	F604	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
181	F605	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
182	F606	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
183	F607	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
184	F608	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
185	F609	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
186	F610	CHIP EMC FILTER	EMCFIL FK2125T-186AL	
187	I101	BUS SWITCH IC	FSTD3306 TSSOP-8	
188	I201	BUFFER IC	74LVC541 SOIC-20	
189	I301	TXT IC	SAA5264 DIP-52	
190	I302	RESET IC	DS1817-10	
191	I401	DE-INTERLACE IC	SDA9400 P-MQFP-64	
192	I402	SYNC IC	LA7217M MFP-14	
193	I501	AD CONVERTER IC	VPC3230D PQFP-80	
194	I601	SOUND IC	MSP3410G PQFP-80	
195	I602	SOUND AMP	TDA8944J	

No	Part No	Name	Desc	Remark
196	I701	FLASH ROM	FLASH_8M TSSOP-48	
197	I702	E2PROM	24C16 SOIC-8	
198	I703	RESET IC	DS1817-10	
199	I801	REGULATOR IC	LDO 3.3V SOT223	
200	I802	REGULATOR IC	LDO 2.5V SOT223	
201	I804		IRF7314	
202	I806	REGULATOR	MC7808	
203	I807	LDO REGULATOR	278R05 TO-220F-4L	
204	I808	REGULATOR	IOR1117-3.3V	
205	I901	MICOM/SCALAR IC	PW164B 256BGA	
206	J501	JACK MINIDIN	YKF51-5560	
207	J502	JACK RCA (AV)	YSC03P-4120-9A, YWR	
208	J503	JACK SCART	FULL SCART JACK	
209	J504	JACK RCA	YSC03P-6720-9A, GBR	
210	J505	JACK RCA	YSC02P-1200-10A	
211	J506	JACK PHONE	YSC-1538	
212	L101	CHIP COIL BEAD	11 2A 2012	
213	L102	CHIP COIL BEAD	11 2A 2012	
214	L305	CHIP COIL BEAD	11 2A 2012	
215	L306	CHIP COIL BEAD	11 2A 2012	
216	L501	CHIP COIL BEAD	11 2A 2012	
217	L502	CHIP COIL BEAD	11 2A 2012	
218	L503	COIL CHIP	3.3UH 3225	
219	L504	COIL CHIP	3.3UH 3225	
220	L505	COIL CHIP	3.3UH 3225	
221	L506	COIL CHIP	3.3UH 3225	
222	L507	COIL CHIP	3.3UH 3225	
223	L508	COIL CHIP	3.3UH 3225	
224	L509	COIL CHIP	3.3UH 3225	
225	L601	CHIP COIL BEAD	11 2A 2012	
226	L602	CHIP COIL BEAD	11 2A 2012	
227	L603	CHIP COIL BEAD	11 2A 2012	
228	L604	CHIP COIL BEAD	11 2A 2012	
229	P201	CONN WAFER	8PIN 2mm Pitch	
230	P202	CONN WAFER	4PIN 2mm Pitch	
231	P601	CONN WAFER	5PIN 2mm Pitch	
232	P702	CONN WAFER	4PIN 2mm Pitch	
233	P801	CONN WAFER	12PIN 2.54mm Pitch	
234	P801A	CONNECTOR FG	SH-WOO-02-005	
235	P801B	CONNECTOR FG	SH-WOO-02-005(100mm)	
236	P802	CONNECTOR AC	SH-WOO-02-003(185mm)	
237	P804	AC HARNESS	SH-WOO-02-004(70mm)	
238	P810	CONNECTOR GND	SH-WOO-02-001 (50MM)	
239	P811	CONNECTOR GND	SH-WOO-02-001 (50MM)	
240	P812	CONNECTOR GND	SH-WOO-02-001 (50MM)	
241	P813	CONNECTOR GND	SH-WOO-02-001 (80MM)	
242	P814	CONNECTOR GND	SH-WOO-02-001 (80MM)	
243	P815	CONNECTOR GND	150mm	
244	P901	CONN FPC	SMD 50PIN 0.5MM	
245	PA201	CONNECTOR	8PIN, 2mm Pitch, 400mm	

No	Part No	Name	Desc	Remark
246	PA202	CONNECTOR	4PIN, 2mm Pitch, 200mm	
247	PA601	CONNECTOR	5PIN 2MM R:420 L:470MM	
248	PA802	CONN WAFER	SH-WOO-02-004[003]	
249	PA803	CONN WAFER	SH-WOO-02-004[003]	
250	PA901	FPC	50Pin 0.5mm	
251	PW801	AC CORD	SP023+IS14 (H05VV)	
252	Q101	TR CHIP	MMBT3904 SOT223	
253	Q210	TR	KTC3198 TO92	
254	Q211	TR	KTC3198 TO92	
255	Q212	TR	KTA1015 TO92	
256	Q301	TR CHIP	MMBT3904 SOT223	
257	Q501	TR CHIP	MMBT3904 SOT223	
258	Q601	TR CHIP	MMBT3904 SOT223	
259	Q602	TR CHIP	MMBT3904 SOT223	
260	Q701	TR CHIP	MMBT3906 SOT23	
261	Q702	TR CHIP	MMBT3904 SOT223	
262	Q802	TR CHIP	MMBT3904 SOT223	
263	Q901	TR CHIP	MMBT3904 SOT223	
264	R101	R CHIP	1/10W 4.7K J 1608	
265	R102	R CHIP	1/10W 4.7K J 1608	
266	R103	R CHIP	1/10W 100 J 1608	
267	R104	R CHIP	1/10W 100 J 1608	
268	R133	R CHIP	1/10W 12K J 1608	
269	R134	R CHIP	1/10W 22 J 1608	
270	R135	R CHIP	1/10W 22K J 1608	
271	R136	R CHIP	1/10W 1K J 1608	
272	R201	R CHIP	1/10W 10K J 1608	
273	R202	R CHIP	1/10W 10K J 1608	
274	R203	R CHIP	1/10W 10K J 1608	
275	R204	R CHIP	1/10W 10K J 1608	
276	R205	R CHIP	1/10W 10K J 1608	
277	R206	R CHIP	1/10W 10K J 1608	
278	R207	R CHIP	1/10W 10K J 1608	
279	R208	R CHIP	1/10W 10K J 1608	
280	R210	R CARBON	1/8W 51 J Axial	
281	R211	R CARBON	1/8W 100 J Axial	
282	R212	R CARBON	1/8W 4.7K J Axial	
283	R213	R CARBON	1/8W 4.7K J Axial	
284	R214	R CARBON	1/8W 4.7K J Axial	
285	R301	R CHIP	1/10W 22 J 1608	
286	R302	R CHIP	1/10W 12K J 1608	
287	R303	R CHIP	1/10W 1K J 1608	
288	R304	R CHIP	1/10W 22K J 1608	
289	R305	R CHIP	1/10W 75 J 1608	
290	R306	R CHIP	1/10W 100 J 1608	
291	R307	R CHIP	1/10W 100 J 1608	
292	R308	R CHIP	1/10W 100 J 1608	
293	R309	R CHIP	1/10W 100 J 1608	
294	R310	R CHIP	1/10W 100 J 1608	
295	R311	R CHIP	1/10W 100 J 1608	

No	Part No	Name	Desc	Remark
296	R315	R CHIP	1/10W 24K J 1608	
297	R316	R CHIP	1/10W 75 J 1608	
298	R401	R CHIP	1/10W 100 J 1608	
299	R402	R CHIP	1/10W 100 J 1608	
300	R403	R CHIP	1/10W 47 J 1608	
301	R404	R CHIP	1/10W 47 J 1608	
302	R405	R CHIP	1/10W 47 J 1608	
303	R406	R CHIP	1/10W 47 J 1608	
304	R407	R CHIP	1/10W 100 J 1608	
305	R408	R CHIP	1/10W 390 J 1608	
306	R409	R CHIP	1/10W 680 J 1608	
307	R410	R CHIP	1/10W 150K J 1608	
308	R411	R CHIP	1/10W 1K J 1608	
309	R412	R CHIP	1/10W 560 J 1608	
310	R413	R CHIP	1/10W 3.9K J 1608	
311	R414	R CHIP	1/10W 10K J 1608	
312	R501	R CHIP	1/10W 100 J 1608	
313	R502	R CHIP	1/10W 100 J 1608	
314	R503	R CHIP	1/10W 3.3K J 1608	
315	R506	R CHIP	1/10W 75 J 1608	
316	R507	R CHIP	1/10W 75 J 1608	
317	R508	R CHIP	1/10W 75 J 1608	
318	R509	R CHIP	1/10W 75 J 1608	
319	R510	R CHIP	1/10W 75 J 1608	
320	R511	R CHIP	1/10W 75 J 1608	
321	R512	R CHIP	1/10W 75 J 1608	
322	R513	R CHIP	1/10W 75 J 1608	
323	R514	R CHIP	1/10W 75 J 1608	
324	R515	R CHIP	1/10W 75 J 1608	
325	R516	R CHIP	1/10W 75 J 1608	
326	R517	R CHIP	1/10W 75 J 1608	
327	R518	R CHIP	1/10W 75 J 1608	
328	R519	R CHIP	1/10W 75 J 1608	
329	R520	R CHIP	1/10W 75 J 1608	
330	R521	R CHIP	1/10W 75 J 1608	
331	R522	R CHIP	1/10W 75 J 1608	
332	R523	R CHIP	1/10W 75 J 1608	
333	R524	R CHIP	1/10W 75 J 1608	
334	R525	R CHIP	1/10W 75 J 1608	
335	R526	R CHIP	1/10W 75 J 1608	
336	R527	R CHIP	1/10W 10K J 1608	
337	R530	R CHIP	1/10W 100 J 1608	
338	R601	R CHIP	1/10W 3.9K J 1608	
339	R602	R CHIP	1/10W 3.9K J 1608	
340	R603	R CHIP	1/10W 100 J 1608	
341	R604	R CHIP	1/10W 100 J 1608	
342	R605	R CHIP	1/10W 1K J 1608	
343	R606	R CHIP	1/10W 1K J 1608	
344	R607	R CHIP	1/4W 240 J 3216	
345	R608	R CHIP	1/4W 240 J 3216	

No	Part No	Name	Desc	Remark
346	R609	R CHIP	1/4W 240 J 3216	
347	R610	R CHIP	1/4W 240 J 3216	
348	R611	R CHIP	1/10W 100 J 1608	
349	R612	R CHIP	1/10W 100 J 1608	
350	R613	R CHIP	1/10W 1.2K J 1608	
351	R614	R CHIP	1/10W 1.2K J 1608	
352	R615	R CHIP	1/10W 10K J 1608	
353	R616	R CHIP	1/10W 1K J 1608	
354	R617	R CHIP	1/10W 1K J 1608	
355	R618	R CHIP	1/10W 20K J 1608	
356	R620	R CHIP	1/10W 20K J 1608	
357	R701	R CHIP	1/10W 1K J 1608	
358	R702	R CHIP	1/10W 3.3K J 1608	
359	R703	R CHIP	1/10W 3.3K J 1608	
360	R704	R CHIP	1/10W 3.3K J 1608	
361	R705	R CHIP	1/10W 3.3K J 1608	
362	R706	R CHIP	1/10W 3.3K J 1608	
363	R707	R CHIP	1/10W 10K J 1608	
364	R708	R CHIP	1/10W 1K J 1608	
365	R710	R CHIP	1/10W 100 J 1608	
366	R711	R CHIP	1/10W 100 J 1608	
367	R803	R CHIP	1/10W 0 J 1608	
368	R804	R CHIP	1/10W 3.3K J 1608	
369	R806	R CHIP	1/10W 3.3K J 1608	
370	R809	R CHIP	1/10W 4.7K J 1608	
371	R901	R CHIP	1/10W 2K J 1608	
372	R902	R CHIP	1/10W 2K J 1608	
373	R903	R CHIP	1/10W 4.7K J 1608	
374	R907	R CHIP	1/10W 1K J 1608	
375	R908	R CHIP	1/10W 27 J 1608	
376	R911	R CHIP	1/10W 47 J 1608	
377	R912	R CHIP	1/10W 47 J 1608	
378	R913	R CHIP	1/10W 100 J 1608	
379	R914	R CHIP	1/10W 100 J 1608	
380	R915	R CHIP	1/10W 2K J 1608	
381	R917	R CHIP	1/10W 100 J 1608	
382	R918	R CHIP	1/10W 100 J 1608	
383	RC1	R CHIP	1/10W 0 J 1608	
384	RC2	R CHIP	1/10W 0 J 1608	
385	RC3	R CHIP	1/10W 0 J 1608	
386	RP401	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
387	RP402	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
388	RP403	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
389	RP404	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
390	RP501	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
391	RP502	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
392	RP503	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
393	RP504	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
394	RP505	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
395	RP901	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	

No	Part No	Name	Desc	Remark
396	RP902	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
397	RP903	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
398	RP904	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
399	RP905	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
400	RP906	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
401	RP907	R CHIP ARRAY	1/10W 0 J SMD4 (1608)	
402	RS1	R CHIP	1/10W 0 J 1608	
403	RS2	R CHIP	1/10W 0 J 1608	
404	RS3	R CHIP	1/10W 0 J 1608	
405	S201	TACT SWITCH	KPT-1115AM	
406	S202	TACT SWITCH	KPT-1115AM	
407	S203	TACT SWITCH	KPT-1115AM	
408	S204	TACT SWITCH	KPT-1115AM	
409	S205	TACT SWITCH	KPT-1115AM	
410	S206	TACT SWITCH	KPT-1115AM	
411	S207	TACT SWITCH	KPT-1115AM	
412	SP01	SPEAKER	3W 8 OHM	
413	SP02	SPEAKER	3W 8 OHM	
414	SW801	AC SWITCH	PS3-22SP-P8CZ	
415	U101	TUNER	TCPQ9091PD27D	
416	V901	LCD MODULE	20.1" CCFL	
417	Y301	CRYSTAL QUARTZ	12.0000MHZ	
418	Y401	RESONATOR	500F9	
419	Y501	CRYSTAL QUARTZ	20.25MHZ 13PF	
420	Y601	CRYSTAL QUARTZ	18.432MHZ 16PF	
421	Y901	CRYSTAL QUARTZ	14.31818MHZ 16PF	
422	PW01	POWER B/D	SW-6500	
423	IB01	INVERTER B/D	KUBNKM038A	

POWER Board

No	Part No	Name	Desc	Remark
1	AR1	ARRESTOR	DSA-452M	⚠
2	C100	C CERA	4KV 2200PF	Y-CAP ⚠
3	C3	C MYLAR	275VAC 0.22UF	X-CAP ⚠
4	C32	C CERA	4KV 3300PF	Y-CAP ⚠
5	C33	C CERA	1KV 0.01UF	⚠
6	C34	C CERA	IKV 100PF	⚠
7	C35	C ELECTRO	50V 47UF	
8	C36	C ELECTRO	50V 1UF	
9	C37	C CERA	IKV 100PF	⚠
10	C38	C ELECTRO	400V 150UF	⚠
11	C39	C POLYESTER	100V 0.033UF	
12	C4	C MYLAR	275VAC 0.22UF	X-CAP ⚠
13	C40	C CERA	4KV 2200PF	Y-CAP ⚠
14	C41	C CERA	4KV 2200PF	Y-CAP ⚠
15	C51	C ELECTRO	400V 10UF	⚠
16	C52	C ELECTRO	50V 47UF	
17	C53	C POLYESTER	100V 0.022UF	
18	C54	C CERA	IKV 100PF	⚠
19	C56	C CERA	50V 0.1UF	
20	C57	C CERA	4KV 2200PF	Y-CAP ⚠
21	C58	C CERA	4KV 2200PF	Y-CAP ⚠
22	C81	C CERA	1KV 1000PF	⚠
23	C82	C ELECTRO	35V 1000UF	
24	C83	C ELECTRO	35V 1000UF	
25	C84	C ELECTRO	25V 1000UF	
26	C85	C ELECTRO	25V 1000UF	
27	C86	C CERA	IKV 1000PF	⚠
28	C87	C ELECTRO	16V 2200UF	
29	C88	C ELECTRO	16V 2200UF	
30	C92	C ELECTRO	10V 470UF	
31	C93	C ELECTRO	10V 470UF	
32	C94	C ELECTRO	50V 1UF	
33	C96	C ELECTRO	50V 1UF	
34	C97	C CERA	4KV 2200PF	Y-CAP ⚠
35	C98	C CERA	4KV 2200PF	Y-CAP ⚠
36	C99	C CERA	4KV 2200PF	Y-CAP ⚠
37	CN1	WAFER	FW2360-02	
38	CN91	CONNECTOR	12 PIN	
39	CN93	CONNECTOR	14 PIN	
40	D1	BRIDGE DIODE	RBV406	⚠
41	D2	BRIDGE DIODE	DF06M	⚠
42	D20	WIRE JUMPER	20MM	
43	D31	DIODE	UF4007	⚠
44	D32	DIODE	1N4937	⚠
45	D51	DIODE	IN4937	⚠
46	D52	DIODE	UF4007	⚠
47	D91	DIODE	FML24S	⚠
48	D92	DIODE	UF5402	⚠
49	D94	DIODE	FMB24L	⚠

No	Part No	Name	Desc	Remark
50	D96	DIODE	RK36	⚠
51	F1	FUSE	250V 3.15A	⚠
52	F1	FUSE BOX	FH51H	®
53	HS2	HEATSINK		
54	HS31	HEATSINK		
55	IC31	SMPS IC	KA1M0680-B	Fairchild ⚠
56	IC51	ST-BY SMPS IC	ICE2A165	Infineon ⚠
57	IC94	REGULATOR	KIA431A	⚠
58	IC96	REGULATOR	KIA431A	⚠
59	J100	WIRE JUMPER	15MM	
60	J101	WIRE JUMPER	25MM	
61	J102	WIRE JUMPER	8MM	
62	J103	WIRE JUMPER	15MM	
63	J33	COIL BEAD		
64	J34	WIRE JUMPER	25MM	
65	J35	WIRE JUMPER	15MM	
66	J4	WIRE JUMPER	15MM	
67	J5	WIRE JUMPER	15MM	
68	J90	WIRE JUMPER	8MM	
69	J92	WIRE JUMPER	15MM	
70	J93	WIRE JUMPER	8MM	
71	J94	WIRE JUMPER	8MM	
72	J95	WIRE JUMPER	20MM	
73	J97	WIRE JUMPER	20MM	
74	J97	WIRE JUMPER	15MM	
75	J98	WIRE JUMPER	8MM	
76	J99	WIRE JUMPER	8MM	
77	L91	COIL CHOKE	6UH	
78	L92	COIL CHOKE	6UH	
79	L93	COIL CHOKE	6UH	
80	L94	COIL CHOKE	22UH	
81	LF1	LINE FILTER	SQ2828	⚠
82	LF2	LINE FILTER	SQ2828	⚠
83	PC31	PHOTO COUPLER	PC817	⚠
84	PC32	PHOTO COUPLER	PC123	⚠
85	PC51	PHOTO COUPLER	PC817	⚠
86	PE1	CONNECTOR	1 PIN	
87	Q91	TR	KSC1008C-Y	®
88	R1	R CARBON	1/2W 1M	
89	R100	R CARBON	1/8W 1K	
90	R101	R CARBON	1/8W 4.7K	
91	R102	R CARBON	1/8W 330	
92	R104	WIRE JUMPER	6MM	
93	R106	R CARBON	1/8W 1K	
94	R107	R CARBON	1/8W 470	
95	R109	R CARBON	1/8W 1.1K	
96	R120	R METAL	2W 2K	
97	R121	R METAL	2W 2K	
98	R122	R METAL	2W 2K	
99	R123	R METAL	2W 2K	
100	R124	R METAL	2W 2K	

No	Part No	Name	Desc	Remark
101	R125	R METAL	2W 2K	
102	R126	R METAL	2W 2K	
103	R127	R METAL	2W 2K	
104	R128	R METAL	2W 2K	
105	R129	R METAL	2W 2K	
106	R130	R METAL	2W 2K	
107	R131	R METAL	2W 2K	
108	R132	R METAL	2W 2K	
109	R20	WIRE JUMPER	15MM	
110	R31	R METAL	2W 68K	⚠
111	R33	R METAL	2W 150K	⚠
112	R34	R CARBON	1/4W 150	
113	R4	R COMPOSITION	1/2W 4.7M	⚠
114	R51	R CARBON	1/4W 470K	
115	R52	R CARBON	1/4W 330	
116	R53	R CARBON	1/4W 10	
117	R54	COIL BEAD		
118	R55	R METAL	2W 68K	®
119	R56	R WIREWOUND	1W 1	⚠
120	R88	WIRE JUMPER	6MM	
121	R89	R CARBON	1/8W 1K	
122	R91	R CARBON	1/4W 100	
123	R92	R CARBON	1/4W 10	
124	R93	R COMPOSITION	1/2W 4.7M	⚠
125	R94	R COMPOSITION	1/2W 4.7M	⚠
126	R95	R COMPOSITION	1/2W 4.7M	⚠
127	R96	R COMPOSITION	1/2W 4.7M	⚠
128	R97	R CARBON	1/8W 4.7K	
129	R98	R CARBON	1/8W 1K	
130	R99	R CARBON	1/8W 1K	
131	T31	MAIN TRANS	SW6500MA	⚠
132	T51	ST-BY TRANS	SW6500SB	⚠
133	TH31	THERMISTER	NTC10D-13	⚠
134	TH51	THERMISTER	NTC5D-9	⚠
135	VR1	VARISTOR	10D471	⚠
136	VR2	VARISTOR	10D561	⚠
137	VR3	VARISTOR	10D561	⚠

PARTS OF DIFFERENCE

SCART option

Option	J503	RS1-RS3	RC1-RC3
Yes	JACK SCART (HR-AG0771G-1)	R CHIP (0 ohm)	R CHIP (Open)
No	JACK RCA (YS01-0001)	R CHIP (Open)	R CHIP (0 ohm)

Teletext option

	I301
With Teletext	IC TELETEXT (SAA5264)
W/O Teletext	IC TELETEXT (open)

Power cord option

	Power cord	Remark
Europe	SP-023-IS14	
Swiss	SP-027-IS14	
Italy	SP-028-IS14	
Denmark	SP-029-IS14	
UK	SP-60-IS14	
Israel	SP-87-IS14	
Australia	SP502B-IS14	
China	SP-506-IS14	

Model

No	Part No	Name	WTP-20A2	WTP-20B2
1	D210	CHIP LED	SLSYGUR302TN, DUAL SMD	
2	D211	CHIP LED	SLSYGUR302TN, DUAL SMD	
3	D212	IR RECEIVER	BRM-1020-FB4.3	
4	D222	IR RECEIVER		BRM-1020-FB4.3
5	D221	DUAL LED		BL-BEG201
6	PA202	CONNECTOR	4PIN, 2mm Pitch, 100mm	4PIN, 2mm Pitch, 200mm
7	Q210	TR	KTC3198 TO92	
8	Q211	TR	KTC3198 TO92	
9	Q212	TR	KTA1015 TO92	
10	Q221	TR		KTC3198 TO92
11	Q222	TR		KTC3198 TO92
12	R210	R CARBON	1/8W 51 J Axial	
13	R211	R CARBON	1/8W 100 J Axial	
14	R212	R CARBON	1/8W 4.7K J Axial	
15	R213	R CARBON	1/8W 4.7K J Axial	
16	R214	R CARBON	1/8W 4.7K J Axial	
17	R221	R CARBON		1/8W 330 J Axial
18	R222	R CARBON		1/8W 330 J Axial
19	R223	R CARBON		1/8W 4.7K J Axial